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New Remedies at the Antipodes—Berberis Aquifolium, Rhamnus Purshiana, Grindelia Robusta, Liquor Ergotæ Purificatus, Sumbul, Eucalyptus Globulus, etc.

By T. M. Curl, M. D., Fellow of the Linnæan Society, England, Rangitikei, New Zealand.

I WILL, in as few words as possible, explain that when these new and improved preparations* were brought to my notice I examined them and found them very carefully prepared; that they were in an excellent state of preservation, no deposits, precipitates, or separation of contents of bottles into various layers, as is too often found in medicinal extracts, tinctures, etc. Analysis in my laboratory showed them to be what they professed to be, and that they were in a condition well suited for storing in druggists' establishments, and would there keep well, and were so prepared that their form was well suited for administration to the invalid. Their active ingredients were chemically and physiologically in the condition the scientific physician would wish them to be in, extraneous and inert matters were removed and they were altogether elegant and useful medicines. Having prescribed them to patients in suitable cases I found they were active and reliable, and their effects such as were to be expected, and I approved the results which I obtained from their administration, when prescribed as solid or fluid extracts.

Berberis Aquifolium. This plant belonging to the Berberidaceæ, seems to possess those properties that belong to the other plants of this family and others of its own. It appears from an incomplete analysis to have alkaloids like Berberin and Hydrastin with a peculiar resin, a possibly new acid and some other proximate elements which require further examination. It might be thus expected to act upon the liver and other glands by its action upon the vaso motor, sympathetic, and other nerve centres; and upon trial it is found to do so, and by the glandular activity there set up, brings about more vigorous and extensive secretion and excretion, thus re-establishing functions in organs that were impaired, or greater activity therein. It thus gradually brings about the healthy equilibrium, and thus restores the sufferer to health, in this way establishing its qualities as described by various writers who have styled it an alterative, a tonic, a cathartic, a diuretic, a diaphoretic and other such terms as describe its effects without examining the cause. It is a useful drug and the fluid extract is a most proper and convenient form for administration. It will be hereafter much used by the busy practitioners who will find it to produce good results in various derangements of the skin, liver, kidneys, stomach, bowels and other organs in which glandular action requires stimulation.

Cascara Sagrada (Rhamnus Purshiana.) There being already several species of the genus Rhamnus used in medical practice, viz., Rhamnus cathartica and the Rhamnus frangula and others, all acting as purgatives of greater or less activity, it might be expected that this member of the family would possess cathartic properties, and experience has now shown that it does so in an eminent degree; and if anything were wanting to prove the usefulness of a knowledge of systemic botany to medical men, it would be the fact that it is here exhibited, of a plant being used empirically and by illiterate persons and proved to be useful, which, when brought to the knowledge of properly educated medical men, is by them at once accepted and tried, because they on learning that it belongs to a family of plants botanically known, are prepared to believe it may possess such virtues as those ascribed to it, and trying it, soon discern its peculiar merits.

We find by our laboratory experiments and tests that the preparations of Rhamnus contain Rhamnin, a pale yellow cauliflower-shaped crystalline substance, Rhamnotannic acid, in green-yellow amorphous pieces of a bitter and acrid taste, fusible and easily broken, readily soluble in alcohol and in ether, and an uncrystallizable substance, Rhamnus cathartine, a friable yellow powder giving out a peculiar odor on being rubbed, has an unpleasant taste, bitter and acrid, fuses by heat to a yellow oily-like fluid, dissolves readily in water, not in ether. Also Rhamnoxanthine, a citron yellow crystalline mass of silky lustre without taste or smell, sublimates in golden yellow needles, is not soluble in water but slightly in alcohol and ether. There are several other interesting bodies, which I have not had time to examine, in the preparation of the Rhamnus. But we know enough to see that is likely to be very useful in an atonic state of the bowels leading to habitual constipation, as these proximate elements contained in it act upon the nerve centres and set up increased peristaltic action of the intestinal tube, as proved in the physiological laboratory, and when prescribed

*From the Laboratory of Messrs. Parke, Davis & Co., Detroit, Michigan, U. S. A.

in appropriate cases, I have found it act very beneficially on patients suffering from all those states of ill-health brought about by insufficient action of the bowels.

The Grindelia Robusta is a remedy I have been prescribing in cases of asthma complicated with bronchitis, and in such cases I believe it to be a very useful remedy, as it in some instances produces very good effects. In some cases of uncomplicated asthma there does not result as much benefit, as the success in other cases lead us to look for, and this uncertainty no doubt arises from our want of a proper analysis of this drug, and a careful and extensive set of physiological experiments carried out with its active principles, or its proximate elements, to make ourselves acquainted with its modus operandi and the nervous centres upon which these proximate principles act and from which these effects are directed to the several tissues and parts of the lungs. I have not yet had an opportunity of completing an analysis and separation of the elements upon which the activity of the Grindelia depends; my present investigations point to more than one, and when these are isolated and their physiological modes of action defined I feel convinced that we shall have a valuable remedy for pulmonary affections added to those we already possess; but, until this is done there can be no certainty in prescribing or in the effects to be prognosticated, and it is the empirical mode of practice that all properly educated practitioners of the healing art should set themselves against, and every effort should be made to follow the scientific method, and thus reduce medical practice to that certainty which is largely possible by the employment of the right method.

We have learned by this method that Opium possesses various proximate principles, morphia, apomorphia etc., and that these have different physiological actions, knowing which, we can prescribe with certainty and produce the effect we require, and to any extent. The same knowledge and effect are recognized of Belladonna, Digitalis, Nux Vomica, the Calabar Bean, etc., and we must go on in this manner until all our drugs are investigated, and then I think Grindelia will not be the least useful among them.

Liquor Ergotæ Purificatus. I am very pleased with this excellent preparation, both from laboratory analysis and my clinical experience, as it produces the certain, and to-be-expected results of the various elements it contains. It is much more certain in its action than most of the preparations. I have used it both in obstetrical practice and also for arresting various hemorrhages, and, as in these cases life may be lost by any uncertainty in the medicines used, it is most satisfactory to be able to feel always that we can have at our command so certain a remedy as this preparation of the Ergot; and I have no doubt it will be more ordered and prescribed every month, the more widely it is known.

I am very glad to receive an excellent solid and fluid extract of the of the Sumbul or Vegetable Musk Root, as there are few more useful medicines than the Sumbul. I first made acquaintance with it in Russia where I found the Asiatic Cholera raging and the Sumbul, having been thought highly of in Persia as a remedy for that terrible disease, was obtained and used in Russia. Having seen such good effects from the use of the Sumbul in Russia I took a very active part in introducing and using it in London, when the cholera arrived there, (where I was then practic ing medicine), and it has in all places, where I have seen that awful disease, (which will kill its victims in two hours from the first of the attack if not stopped) been one of the very few remedies that were of any use. It is a most vigorous stimulant and an antispasmodic, arresting spasms effectually and speedily in many nervous and muscular affections; and I could give hundreds of instances when it has cured such cases after other remedies had failed.

The Eucalyptus is also a drug from which much benefit will arise, and when we remember how many active elements there are in it, we are led to a knowledge of why a properly formed preparation is so useful as a medicine in many disorders.

There is the, 1. Eucalyptic Acid, 2. A volatile oil, 3. A resin which has an acid reaction, 4. Eucalyptin, a bitter substance that crystallizes and is soluble in ether and alcohol. This element cures intermittent fever. 5. A yellow resin of bitter taste, 6. A white body crystallising in needles, called Eucalyptol. There are other elements, but these are the most important and as they each act upon different nerve centres and tissues it easy to see how much good can be accomplished by this drug and its preparations.

Did opportunity now serve it would be possible to go into details and give cases of the beneficial action of the different drugs noticed, but this, if done at all, must be at a future time, as it would occupy too much valuable space in the THERAPEUTIC GAZETTE. The other new remedies must likewise wait for notice hereafter; but of many of these I am sure from my trial of them that they are valuable additions to the materia medica, as they act better and with more certainty in properly chosen cases than others heretofore used. Of such are the Piscidia Erythrina, a most valuable addition to our drugs. The Rhus Aromatica, is also excellent. The Cereus Grandiflorus which I find very useful in heart affections, as is also Cereus Bonplandii, and Eriodyction Californicum. These, and others, I have found admirable remedies.

In my next communication, if the editor wishes it, I will describe a few new drugs from the New Zealand flora, that I have discovered to be valuable additions to our recognized medicines. Among these preparations from the Phoemium Tenax, others from the Deimis Axillaris, others from the Piper Excelsium, others from the Edwardsia Microphylla, others from the Veronica Salicifolia and various other plants.

I send you, Mr. Editor, by the same mail as this, a printed paper that I wrote upon the Pituri, a new medicine of the greatest possible value, if you like to publish it in your valuable GAZETTE you will probably be the first to introduce it to the great American public and the medical profession. At the time I wrote my paper now sent to you, I had only just received a comparatively small quantity of the Pituri but further researches prove it to be even more useful than I then thought it. Another opportunity will serve for giving fresh facts thereon.

[Reported for the Therapeutic Gazette.]

On the Mineral Acids.

From a Lecture delivered at the Michigan College of Medicine Detroit, Michigan. By J. J. Mulheron, M. D., Professor of Institutes of Medicine, Materia Medica and Therapeutics.

YOU will readily infer from what has already been said of the strong affinity of these acids for alkalies that they are not likely to enter the circulation as acids, and from what has been said of their action on albumen, that it would indeed, not be well that they should thus enter. The therapeutic effects of mineral acids are, furthermore, not traceable to any modification which they cause of the circulating fluids. Their direct systemic action is at all events sufficiently slight to justify us in ignoring it at this time. The improvement which follows their employment is due to the tonicity which they impart, by their local contact, to the gandular apparatus and the lining membrane of the alimentary canal, thus placing the digestive apparatus in a condition to more satisfactorily perform its functions. That part of the acid ingested, which unites with the alkaline bases present in the stomach and elsewhere, to form salts, is alone absorbed, and its utility as thus absorbed is of questionable importance. That portion which does not thus combine continues its way through the canal exerting its influence until it has spent itself on the lining membrane. The majority of these acids have a strong affinity for water, and by contact with the tissues produce an effect in virtue of this affinity, in proportion to the degree of their dilution. Mineral acids are also very strongly penetrative, and should on this account be given largely diluted, a strong acid mixture being liable to cause serious destructive change in the tissue. The long-continued use of acids even in small and diluted doses is also liable to cause impairment of the tissues, and thus after having relieved the difficulty for which they were originally given, produce a condition similar to that which first obtained.

A question of much practical importance connected with the giving of these acids, in common with other acids, is their effect on the secretions of the alimentary tract. This influence is probably not as generally understood, and if understood, not as generally regarded, as the success of the treatment of dyspepsia, for instance, renders necessary. The profession is especially indebted to Dr. Sydney Ringer for the pointed attention which he has called to it. It is a physiological law that acids check acid, and stimulate alkaline secretions. This law borne in mind would ensure an intelligent prescription of this class of remedies, and avert much of the mischief which, it is to be feared, is traceable to their haphazard use. The converse of this proposition is equally true: Alkalies stimulate acid, and check alkaline secretions. The practical bearings of this law are numerous:

The sponging of the body with a mixture of vinegar and water, in the perspiration, (an acid secretion) or rather transpiration (a more passive exudation) of low fevers, is familiar to all, even to the laity, as a valuable and refreshing measure; and the sulphuric acid and quinine mixture of so much service in the sweating of phthisis doubtless owes its value more largely to the acid than to the quinine.

In fever, thirst is a usually distressing symptom, and one generally out of all proportion to the demands of the system for fluid. The sensation is due to a dryness of the mouth from a lack of the usual secretion of the salivary glands. It is a cruel thing to deny the patient a proper amount of water in fever, but it is unwise to allow him to endeavor to sate his desire by drinking, and doubtless much mischief is caused by mistaken kindness in this regard. Too much water is apt to aggravate the distress of the sufferer by causing anorexia, indigestion, diarrhœa, flatulence etc. The giving of an acidulated bitter mixture will generally relieve the desire for drinks, by stimulating the secretion of the salivary glands, such secretion being alkaline. The bitter assists the action of the acid in such cases.

Acids given before meals relieve acidity of the stomach due to hypersecretion of acid. They do this by diminishing the sensibility of secretory apparatus of the stomach against the administration of food, the natural stimulus of this secretion. But all cases of acidity are not due to the hypersecretion of acid; paradoxical as the statement may appear, many of such cases are due to the secretion of too little acid. A definite amount of the normal acid secretion is necessary to digestion, the albuminous constituents of food especially requiring it. When the acid is not present in sufficient quantity other changes than those of digestion supervene—fermentation, leading to the formation of butyric acid particularly, among others. We have in acids a remedy for acidity due to either of these causes. If due to too much acid secreted by the stomach, the acid must be given before meals. If due to too little acid secreted, the acid must be given after the meal. In the latter case the administration of an alkali before meals, would on theoretical grounds, be beneficial, although I have never made the experiment. An alkali given after a meal in cases of acidity due to hypersecretion will afford but temporary relief, by neutralizing the acid, but at the risk of subsequent aggravation; the subsequent aggravation will not be so great when the acidity is due to the products of fermentation.

How are we to determine in cases of acidity whether to give an acid or an alkali, or whether to give the acid before or after meals, that is, how are we to determine whether the acidity is due to over secretion or deficient secretion of the normal acid of the stomach? We may say in general terms that when we have a deficiency in the acid secretion, the pyrosis which occurs immediately, or soon after a meal has not the sour taste characteristic of the pyrosis accompanying hypersecretion; the acidity in the former case, being due to fermentation, comes on much later than in the latter. In deficiency of the acid secretion we are also likely to have eructations of disagreeable gases, having the taste and smell of rotten eggs (sulphuretted hydrogen). Accompanying this there is usually much depression of spirits, the patient having the "blues." In these cases, also, an examination of the urine will generally reveal the presenec of ox-

alic acid; and when oxalic acid is thus found nitric acid most effectually meets the indication.

It is generally good practice to associate the simple bitter tonics with the acids in the treatment of dyspepsia.

I am asked whether this treatment of acidity by acids is not homœopathic? It matters not to us whether it is or not; if acids relieve the condition through the law of similars it becomes us to acknowledge the fact, for we are not dogmatists, denying a truth simply because it does not conform to our theory. But a careful investigation of the modus operandi furnishes no support for the homœopathic dogma. Please recall the third of the circumstances, which we enumerated in a previous lecture, as influencing osmosis: "the affinity of the fluid on the opposite sides of the animal membrane for each other," and a much more intelligble explanation of the phenomenon is given than can be furnished us by homœopathy. An acid fluid on one side and an alkaline on the other is most favorable to osmosis.

But the action of acids and alkalies admit of another explanation and one which doubtless acts conjointly with that already referred to: Irritation of the outlet of a duct stimulates the secretion of the gland from which the duct leads. This physiological fact has many familiar illustrations; it explains the action of a saline cathartic in exciting the flow of bile, the action of an irritant in exciting a flow of saliva, or a flow of tears, etc. A gland is irritated by a substance different in chemical reaction from that which it secretes, such substance acting as a foreign body. This is accomplished through reflex action, the irritation being conveyed to the cerebro-spinal axis and being reflected through the cerbro-spinal nerves, after the manner which either has been, or will be, explained to you from another chair. The section of these severs the medium of reflection and then we have no secretion.

A solution similar in reaction to that secreted by the gland not only does not act as a foreign body, to irritate, but actually lessens the sensibility of the gland, exerting a lenitive influence on it, and rendering it less susceptible to its natural stimulus. Bear constantly in mind that the functions of the body are the resultants of irritation or stimulation and you will the more readily understand the action of acids and alkalies on the secretions, and consequently will be less liable to regard the apparent phenomena which we have indicated as supporting, in the remotest degree, this most absurd of modern dogmas.

[Written for the Therapeutic Gazette.]

The Active Properties of Plants Considered as a Feature of Relationship.

By Volney M. Spalding, B. A., Assistant Professor In charge of Botany, University of Michigan.

SOME recent study of the active properties of plants as manifested in closely related species, more especially among those belonging to the same natural orders, has led to the conviction that numerous mistakes might be avoided and therapeutic experiments conducted much more directly and surely, by attending to certain well known facts of relationship familiar to botanists, but perhaps not sufficiently studied by members of the medical profession. While it is true that no invariable law can be stated at present, it nevertheless seems certain that relationship indicates and more or less perfectly defines the active properties of plants. A study of a few of the best defined orders will illustrate this proposition and in some measure test its accuracy, and may perhaps prove of practical service in reducing the number of fruitless therapeutic experiments by suggesting a reasonable basis upon which to conduct such investigations.

First on the list in all our manuals stand the Ranunculaceæ, or Crowfoot Family, an order of very highly developed plants, of clearly defined form and structure, and of marked physiological properties. The species belonging to this family, with but few exceptions, are acrid and poisonous. Aconitum napellus, the source of the well-known Aconite, in too large doses causes "loss of sensibility, paralysis and death."

Helleborus Niger, or Black Hellebore, famous, or perhaps infamous, from the remotest times, possesses violent narcotic and irritant properties, proving fatal when administered in excess. Helleborus Viridis, which grows to some extent in this country, has essentially the same nature. The seeds of various species of Larkspur are sufficiently poisonous to render them efficient vermicides.

Even the beautiful Anemones are irritating and vesicant. Clematis is acrid enough to produce blisters, and numerous species of the genus Ranunculus, which is taken as the type of the family, are possessed to a notable degree of the same properties. In other genera, such as Hepatica, the acrid properties have been only slightly developed and are scarcely noticeable. A few species of the family merit special notice, from the fact of their constituting an apparent exception to the general rule. Among these is Hydrastis Canadensis, the source from which hydrastin is obtained, largely employed by the medical profession, and considered a valuable and efficient tonic. Another is Coptis trifolia, or Goldthread, also celebrated as a "pure, bitter tonic." Still another is Xanthorhiza, the shrub Yellow-root of the Southern States. These species are all characterized by the presence of a yellow coloring material and yield more or less of the alkaloid berberina. They are bitter and tonic instead of acrid. How then is this fact to be accounted for without destroying the value of the proposition which we have undertaken to illustrate? If we study closely a small family of plants nearly related to the Ranunculaceæ, the Barberry family or Berberidaceæ, we shall find very few botanical characters upon which to base their separation. The species of the latter family have a definite number of stamens, anthers opening by valves, and an axile instead of basal embryo, otherwise they are like the members of the Crow-foot family. In some respects the botanical characters of the three species mentioned above approach very closely those of the Barberry family. Again various species of the Berberidaceæ are distinguished by the presence of a yellow coloring material and, like the species named, produce berberina. Moreover they are tonic and febrifugal. Here then is a most obvious case of relationship, connecting species of two families,

accompanied by identity or similarity of products and active properties.

Another case of relationship between the members of separate families is seen upon comparison of the two orders Berberidaceæ and Menispermaceæ. Here again the botanical characters drawn from the flowers are noticeably similar, and various species of the latter family, of which colombo may be specially mentioned, produce berberina and exhibit tonic effects.

Passing by without special notice a number of small orders we come to the Cruciferæ or Mustard family, represented by Mustard, Scurvy-grass, Radish, Cresses and various other well known pungent herbs, constituting a decidedly marked family of plants, whose active properties are no less uniform than the "cruciform, tetradynamous flowers" which indicate at a glance their botanical relations. There are no poisonous plants in this order but all its representatives are characterized by the presence of a pungent juice, mild enough in the various cresses to produce an agreeable salad, but much stronger and mixed with a powerful volatile oil in Horse-radish, Mustard and others, imparting to them decided antiscorbutic and rubefacient properties.

So uniformly are these pungent properties present in plants of the Mustard family that their action may be calculated upon with certainty. This fact has several practical bearings. In the first place it is not improbable that many more species of the family will be found to have a definite therapeutic value, as, for example, the very common herb Shepherd's Purse, which has recently received highly favarable notice, as a diuretic and promises to become an important member of the materia medica. On the other hand these same properties may occasion very deleterious effects, as, for instance, when even a small percentage of the seeds of any species of this family is introduced into linseed meal when employed as a demulcent. A case in point came under the observation of the writer something over a year ago. Mrs. A., æt. 60, was beginning to recover from a typho-malarial attack. Her bowels were in a very weak and disturbed condition and at intervals required the application of a flax seed poultice, which generally produced the quieting effect desired. Linseed meal purchased at one of the stores in town, however, developed, as soon as made into a poultice, a pungent, volatile vapor which nauseated the patient and otherwise produced unfavorable results. There can be little doubt that the seeds of False Flax, Camelina sativa, a weed belonging to the Mustard family and of frequent occurrence in flax fields, had been ground with the genuine linseed and were the means of producing the disagreeable and even dangerous effects described.

Passing without special notice the Caparidaceæ, whose species have properties nearly identical with those of the Cruciferæ, the Caryophyllaceæ, a large order of insipid and apparently useless plants, and several other orders not distinguished by any very prominent qualities we come to the Malvaceæ. The species of the Mallow family are distinguished for their mucilaginous properties. The demulcent action of Althæa root has brought it into very extensive use, and its properties are shared to a great degree by other species of the order, among them the Hollyhock, which are sometimes substituted for it.

The root of the Cotton plant, however, appears to be exceptional in its action, producing effects which have been compared to those of ergot and believed by some to be quite as efficient. So marked a case shows plainly that permanent and uniform as family characters may be they cannot be followed blindly. As with all other rules prominent and undoubted exceptions occur.

Another group of plants, of special interest for the number of important species it has contributed to the materia medica, constitutes the Rutaceæ or Rue family. Its members are conspicuous for the presence of numerous glands which produce an abundance of a pungent and aromatic, volatile oil. The common Rue, from which the order derives its name, Shakespeare's "Herb of Grace," is exceedingly powerful and overdoses of its decoction have produced alarming and even fatal effects.

Dictamnus Fraxinella, a cultivated species, is said to produce so large an amount of volatile oil as to render the surrounding air inflammable in hot weather, a statement that may, perhaps, be taken *cum grano salis*. The different varieties of Buchu leaves are distinguished by the presence of oil glands, located beneath the epidermis, to whose products the peculiar nauseating odor of the drug, and, to some extent at least, its therapeutic action, is due. The leaves of Jaborandi which have become famous within the last few years as the "only direct and essential diaphoretic of the materia medica," are marked throughout with pellucid glands which contain an essential oil. The Prickly Ash, so abundant in the United States, is well known for its pungent, aromatic properties and its stimulating action, and another indigenous species, Ptelea trifoliata, the Hop tree or Wafer Ash, endowed with almost as marked properties, deserves a closer investigation of its therapeutic virtues. Stimulating properties appear to be common to the entire family rendering many of the species highly valuable medicinal agents.

The Anacardiaceæ or Cashew family are remarkable for a resinous or milky acrid juice, whose exceedingly poisonous properties manifested in the indigenous species of Rhus, popularly known as Poison Ivy, Poison Sumac, etc., may well occasion distrust of any woody plant "resinous, milky juice, dotless leaves, and small inconspicuous flowers, with an ovary containing a single ovule suspended at the end of an erect cord." Even the fine varnishes produced by various species of Pistacia Anacardium, Rhus and Melanorrhea known in trade as "black varnish," "Japanese varnish," etc., are to be handled with care on account of their acrid properties.

A safe rule to observe with all the species of this family would be to trust none of them until proven by repeated experiments to be harmless. With such dangerous properties the family is, to say the least, a very unpromising one from a therapeutic stand-point. Yet even here we are to all appearances met by another prominent exception in Rhus Aromatica which appears from the reports of competent physicians to be assuming a settled position as a reliable and effectual remedy for various respiratory and urinary affections. But whatever the promise and apparent usefulness

of the drug, its close relationship to the dangerous species mentioned above, will at least suggest prudence in its administration until it is fully proven not to partake of their deleterious nature.

[Written for The Therapeutic Gazette.]

On Rectal Alimentation.

By C. H. Stowell, M. D., Lecturer on Physiology and Histology, University of Michigan, Ann Arbor.

I NOTICED in your September number an article by J. H. Egan, on Sanguis Bovinus Exsiccatus, in which are some statements that it is difficult to accept.

The first statement I cannot understand is this, "There is no doubt that all substances injected are not absorbed by the rectum, but pass up the canal until they may reach the stomach itself."

As this is the exact reverse of the usual method positive proofs should be forthcoming to substantiate the statement. We certainly may have anti-peristaltic waves of contraction. These were thought to be "return waves" of the downward current; but now we know that if the duodenum be mechanically stimulated both peristaltic and anti-peristaltic waves may be seen. The former, however, cease at the ileo-cæcal valve and the latter at the pylorus. Spontaneous waves may be seen in the duodenum passing both ways. Yet, "stimulation of the small intestine does not cause movements either in the stomach or large intestine, and stimulation of the large intestine causes no movement of the small." (Foster third edition, p. 383, Lea.)

It must be remembered that peristaltic action is largely an automatic action, and that the presence of food or digested matter does not of necessity cause these movements. An anti-peristaltic wave, we will say, carries the contents of the rectum along the colon until it reaches the point of union of the ileum to the colon. What do we find here? Gray says, "a valve formed by two folds of the mucous membrane, which project into the large intestine, the valves being separated by a narrow slit-like aperture." Further he says, "When the cæcum is distended the margins of the opening are approximated, so as to prevent any reflux into the ileum."

In the physiology of Flint, 1876, p. 289, we read that "pressure from the ileum would open this slit, but pressure from the cæcal side would approximate the lips, and the greater the pressure the more firmly is the opening closed."

Marshall says: "Once having passed this valve, no force exerted upon the intestinal contents can ever return them into the small intestine, the valve-segments, owing to the elasticity and muscularity of all the parts, meeting closely together under every change of dimensions. Even after death when these parts are removed from the body, water, poured into the colon, is, owing to the closure of the valve segments, completely prevented from passing into the ileum." Theoretically the passage of any matters from the large intestine into the small is of the rarest occurrence, and practically we believe it never occurs.

"The object of digestion is to convert food into blood" (how about animals that "digest" and yet have no blood?) "and that if we inject blood it requires no preparation, but can be at once carried into the circulation." The latter part of the sentence is true provided a transfusion apparatus be used and the blood injected directly into the circulation. Not true, however, if you inject blood anywhere outside of vessels. If the author's statement be true, then if a person should drink one pound of blood, he would very soon have just one pound more of blood in circulation; whereas, we know that a very few ounces injected by transfusion is sufficient even when the person has lost a large amount of blood, and we are directed that "the quantity of blood used should be small."

Blood introduced into the rectum or stomach cannot be "carried to the circulation" at once without change. In this very article "Dr. Stewart says that experience does not justify us in believing that blood is absorbed from the rectum without a breaking down of the corpuscles." They "break down" because they are undergoing chemical changes necessary to fit them for absorption.

Many cases could be given here where life was prolonged or saved by rectal injections of various substances, even of cream alone, or, of late, of artificially digested food. I claim this latter method to be the one most entitled to our serious consideration. With our present knowledge of digestion we can nearly, if not entirely as well digest our food out of the body as in it. Now inject into the rectum this digested food and only absorption is necessary.

Blood, fresh or dried, is valuable as a nutritive, above other substances only according to the proportion of its nutritive ingredients. The fact that it was once "circulating blood" has nothing to do with it. Its chemical composition should be compared with that of other substances, as milk, etc, and its value thus determined. Native protoplasm we know consists of three large classes of substances, namely: "Proteids, carbohydrates, and fats in association with smaller quanties of various saline and other crystalline bodies."

The dried organic matter of red blood-corpuscles consists of:

Hæmoglobin,	90.54	parts.
Proteid substances,	8.67	"
Lecithin,	.54	"
Cholesterin,	.25	"

The inorganic salts amount to less than one per cent. If hæmoglobin be injected into the circulation, either no effect is produced or there is an increase in the amount of bile and urinary pigments. (Foster, p. 58.) In 100 parts of the fresh serum of blood there are from 8 to 9 parts of serum albumen and paraglobulin. (Proteids).

Blood is not "already fit to be taken up by the lacteals," but must first undergo chemical change identical with milk, beef extract, etc. A very little reading will convince the author that the value of beef does not depend upon the blood it contains, and that the juice of beef is not simply blood.

"Flesh owes its nutritive value to its albuminous and collagenous constituents, its fats and its salts," so says Burdon-Sanderson. He says also that "eighteen per cent. of lean meat (beef) is albumen."

The writer says, "it must be admitted that milk

will be absorbed without change, as it has been used in place of blood for transfusion."

Please tell us why it is that because milk has been used for transfusion it in any way proves that the same substance can be absorbed from the rectum without change?

I can testify personally to the great value of a number of the new remedies recently introduced to the medical profession. I have never had occasion to try Sanguis Bovinus Exsiccatus, and therefore have no practical knowledge of it. The article is written in behalf of physiology, and not in the least to discuss the relative merits of blood for rectal alimentation. This can be done in a different and more satisfactory manner.

[Written for the Therapeutic Gazette.]

Medical Jottings — Influenza, Guy's Hospital Muddle, Chian Turpentine, Hydrastis, Nitro-Glycerine, Resorcin, Jaborandi, A Remedy for Falling Hair, Carica Papaya.

From our London Correspondent.

THE Fogs—a favorite subject with Londoners—have commenced again in real earnest, and everyone is suffering from cough and colds. There has been an extensive epidemic of influenza too. The amount of prostration is out of all proportion to the fever and for ten days or a fortnight one is fit for nothing. The best treatment is aconite to begin with, and then plenty of quinine. The ammoniated tincture is a good preparation, and port wine, the latter being taken almost *ad libitum*.

October is the month for introductory lectures and addresses of all kinds, but this year none of them seem to have attracted any very general attention. Dr. Burdon Sanderson's at University College was probably the best. The utterances of an accomplished physiologist will always command attention.

That unfortunate row at Guy's Hospital between the medical staff and the governors is still the general theme of conversation. The management of this institution—we used to call it a *noble* institution—is entirely in the hands of the governors, a self-elected body, some sixty in number. These gentlemen are appointed mainly on account of family connections or political principles, or such eminent public position as in itself implies more or less complete absorption in other duties and occupations. Not one of them has been selected on account of his knowledge of hospital management, and there can only be a very small minority, if indeed there be any, who are practically acquainted with the inner life, the actual working and the real requirements of the institution over which they have control. Such a constitution as this can escape censure only so long as it escapes observation, and is self-condemned as soon as it is brought into prominence by the exercise of the powers which it bestows. These governors are a body of gentlemen of high position, but possessing no special knowledge, either individually or collectively, which can qualify them to pronounce authoritatively upon many of the questions submitted to them. They give nothing to the hospital; they are independent of its reputation, and they have none but a titular connection with it. The staff is composed of men who have spent the best part of their active lives within the hospital walls, who are bound to it by every consideration of honor and of interest, and who daily render to it services of inestimable value, and they are constantly called upon to discharge duties of the most delicate and difficult character. Persons fitted to discharge the duties of governor grow upon every bush, but a skilful surgeon is one of the most elaborate products of civilization.

Another controversy now attracting much attention in medical circles is what may be called the "Chian Turpentine" controversy. Professor Clay still maintains that it is almost a specific for cancer, whilst his opponents say it is good for nothing. So much personality has been introduced into the discussion that the question is hardly likely to be decided on its simple merits. The fact, however, remains, that there is still a very great demand for the drug and that it fetches almost fabulous prices.

I cannot help thinking that Hydrastis is worth trying in cancer and malignant disease, although I must admit that there is at present no very positive evidence to show that it can effect a cure. In England curiously enough this valuable drug is almost unknown. It is true that in London we do not see much intermittent fever nowadays, but still there are many cases in which it might be advantageously employed. It is a capital stomachic tonic and is of great value in the treatment of atonic dyspepsia. It is a good remedy too for the stomach catarrh and morning vomiting so often associated with chronic alcoholism. For piles, too, it is most useful, and will succeed when even Hamamelis Virginica has failed. In prolapse of the rectum in children, in fissure of the anus, and in ulceration of the rectal mucous membrane it is strongly recommended. It has a marked influence over the mucous membranes generally and may be used with much advantage in otorrhœa, conjunctivitis, ozæna, stomatitis and other allied conditions. Rutherford's experiments on the action of the resin—Hydrastin—are well-known. He has shown that it is a powerful hepatic stimulant and that it also excites, though to a less degree, the peristaltic action of the intestines. I am confident that if practitioners were to employ Hydrastis more largely they would have every reason to be satisfied with it.

I have recently heard of some cases of Bright's disease in which Nitro-Glycerine was used with the very greatest benefit. It is said to do admirably in acute nephritis. The dentists are using it extensively in the treatment of neuralgia.

If we can believe all we hear about Resorcin it is likely to prove a valuable addition to our list of new remedies. Its formula is $C_6 H_4 (O H)_2$, and it is made—or at all events used to be made—by fusing Galbanum resin with Potash. It is also prepared on a large scale for the manufacture of the brilliant coloring matter called Eosin. When given in 30 or 40 grain doses to febrile patients, it quickly brings down both the pulse and temperature and the skin becomes bathed in profuse perspiration. The only drawback to its employment is that it sometimes gives rise to a condition resembling intoxication, in which the patients say and do all kinds of queer things. It is said to be almost a specific for intermittent fevers. We shall probably hear more about it later on.

I find the dermatalogists use Jaborandi largely in the treatment of skin diseases, especially for psoriasis and other scaly affections. In syphilis too it has been found useful. I was looking over Langgard's "Diccianario de Medicina Domestica" the other day and was astonished to find that he gives a pretty full account of the action of this useful drug. His book was published in Rio de Janeiro, in 1865, and to him undoubtedly belong a share of the credit of introducing this new remedy. Jaborandi, is a capital thing to make the hair grow, although it is not often used for this purpose. Here is another remedy for falling hair that may prove of use to some of the readers of the THERAPEUTIC GAZETTE:

℞ Vaseline,
Castor oil of each ʒss.
Liq. ammon. fortior ʒss.
Red oxide of mercury, grs. v.
Oil of rosemary to perfume.

M. Use as a pomade, and rub well in.

An attempt is being made to introduce the Pawpaw plant (Carica Papaya) as a remedy for indigestion. Mr. Bouchut has recently made some interesting experiments as to the action of the diluted juice of the plant on living animal tissue, and finds that the effects produced are similar to those in dead tissue, adenomata and cancer being digested and converted into peptones. I hear that it is largely employed in Ceylon to procure abortion in married women, who become pregnant at inconvenient times.

[Written for the Therapeutic Gazette.]

Puerperal Convulsions Treated by Physostigma.

By S. A. Butterfield, M. D., Indianapolis, Ind.

I HAVE been for over thirty years hard at work in my profession, all the time a constant reader of our medical journals, absorbing the experience of others but giving nothing in return; so now, that poor health admonishes me to call a halt, and keeps me in the house one-third my time, I will while away the tedious hours by occasionally giving the GAZETTE a little of what I think useful in my long experience.

Obstetrics and diseases of women having for a long time been my favorite division of medicine, I will give a few of my observations on puerperal convulsions. When called to a case of this we make special enquiry and examination about and of the urine, expecting according to our authors to find albuminuria in nearly, if not all cases. But my experience is that not every case of eclampsia is accompanied by albumen in the urine; but as my object in this article is but to call attention to some points of treatment of this formidable disease I shall not discuss its origin or causation but leave all that to theorizers. Bromide of Potassium, or preferably, lithium, especially in plethoric patients, with, perhaps, loss of blood in some cases may be demanded if the head be hot and face flushed, especially during intervals of rest. I am aware that chloroform is now the common resort to stay the fits, and really does well as a present palliative, but my observation is, not to permanently cure. Having, in a very urgent case, been foiled in my attempts to permanently arrest the convulsions by chloroform and other usual remedies I determined, on theoretical grounds, to resort to hypodermic injections of fl. ext. physostigma made from the officinal solid extract; my first injection contained about one-fourteenth grain. To my great surprise, and no less joy, the fits at once vanished never to return, though the patient was kept under the influence of the remedy for a week in diminishing doses, and my son, Prof. W. W. Butterfield, just informs me that last night he safely delivered her of a second child, with no symptoms of her old trouble.

Again, some four weeks ago I was called to see a healthy primipara in her eighth month of pregnancy, with an attack of malarial fever of a low typhoid type. The usual treatment was, in a short time, getting the fever under control, when I was summoned in haste to see her in a fit. Found her terribly convulsed, with scarce cessation of one paroxysm till another began; the face much flushed and continued heat in the head. Gave at once twenty grains Bromide of Potassium, and repeated every half hour, having no physostigma in my case; no abatement of spasms. Sent to the drug store for the fluid extract of the bean; gave eight drops, and convulsions stopped at once and did not return. Last week she was delivered of a fine, healthy, living boy without an untoward symptom. The fever seeming to increase after her spasms I added tincture aconite to her other medicine and it, too, disappeared.

In the last GAZETTE I see Dr. Chenoweth gives a formula for what he calls a "Compound Cerebral Sedative," and recommends that some manufacturing chemist place it on the market for general use. Now my first objection to this is, that the increase in nervous diseases may, I think, be traced to the indiscriminate, careless and too frequent use of just such remedies as this, and if put on the market this one would soon be kept by "nervous" people to be resorted to on every slight provocation, the same as other narcotics. Nor is this all: My experience with chloral hydrate is, that it is a very uncertain remedy in its effects on different persons; a dose that seems all right with one being extremely dangerous with another; why or how it is I don't pretend to know, but with some the smallest quantity, two or three grains, produces the most alarming prostration and faintness, not to be attributed to an impure drug as the effect on others proved. I have a standing proof of what I assert in the person of the wife of my son, (Prof. W. W. Butterfield,) a healthy, well developed woman, to whom two grains of chloral are a poisonous dose, so that Dr. Chenoweth's minimum dose (seven and a half grains) would, perhaps, destroy her life in an hour. I have seen enough of chloral to know it should only be given by a careful physician, valuable remedy as it is; and the patient's tolerance of the drug, (if not previously known,) should be ascertained before even medium doses are ventured upon.

Reports on New Remedies.

[Written for the Therapeutic Gazette.]

Coca in Delirium Tremens and Alcoholic Tremor.

By P. D. Winship, M. D., Marshalltown, Iowa.

ON the 18th of August I was called in a case of mania a potu. The case was not an extreme one being the beginning of his first attack. Insomnia was marked and tremor were decidedly bad. I gave him Coca 30 drops every two hours, and carefully watched the effects. At the end of 12 hours I saw but little change for the better and I increased the dose to teaspoonful every four hours. The increase of the dose was followed by marked improvement, the patient ceasing to tremble and passing a quiet night.

In the morning the dose was decreased to one-half teaspoonful three times a day, tonics being given in the interval. Second night, patient slept well but complained of numbness in lower limbs and of trouble in micturating. The numbness soon disappeared and the urinary trouble was easily corrected. Improvement was steady and continuous until complete recovery. The desire for liquor has disappeared but how long this will continue depends upon his power to resist some one's treat."

Encouraged by my success in the above case I made a trial in the case following:

A. L., merchant drinks habitually, in keeping his books finds it impossible to write a line until he has taken 6 to 10 drinks of whisky. Stomach had become so debilitated that it was with difficulty that he retained the stimulant.

I gave him:

℞ Fl. Ext. Coca, ʒi.
Simple Elixir, ʒiij.

M. Sig. One to two teaspoonfuls on rising in the morning.

Elixir Bismuth teaspoonful before each meal.

Even the first dose of Coca gave him such relief from tremulousness that he began writing at once in the morning without the usual liquor. He remarked "that is the first thing that ever staid on my stomach since this trouble began, without holding it down with whisky."

He has steadily improved and now drinks less than three ounces of liquor a day and begins his work and writes during the day with no trouble. I hope to persuade him to discontinue liquor entirely, and if the Coca does not require to be continued until a Coca habit is formed the drug will have demonstrated its superior value in this troublesome class of cases.

I shall report at some future time the finale of these cases.

[Written for the Therapeutic Gazette.]

Jamaica Dogwood in Convulsions Attending Dysmenorrhœa.

By W. F. Sharrer, M. D., Rockford, Ind.

MISS W., æt. 16 years, was attacked Saturday night, Oct. 2, 1880, with severe colicy pains in the womb. A hot hop poultice was applied, but no relief obtained, and the pains extended to her limbs. Headache also supervened and painful "cramps," until about 3 A. M. of the next day, when the young lady was taken with a spasm. The family treated her with household remedies till 9 or 10 o'clock A. M., when a messenger was despatched for me with the information that the young lady was dying. On arriving at the house I found the patient in intense agony, severe pain in head and back and colicky pains all through abdomen. The spasmodic contractions of the arms and limbs were the worst I ever saw. I had a bottle of fluid extract of Jamaica Dogwood in my pocket and it struck me at once to test the effect of the drug in this case. I administered one-half drachm (ʒss), diluted, and in ten minutes I saw it was going to have a good effect. I then gave ʒss more, and in twenty minutes longer relaxation had taken place, and the pains had nearly all gone. I then gave ʒss more and in twenty minutes all spasmodic difficulties and pains had ceased and my patient was sleeping a sound and sweet sleep from which she awoke some eight hours later feeling quite well, considering the severe attack. She came to my office yesterday (October 10th) looking as fresh as a peach, and stating that she had not had any pains since I visited her on the 4th, and that the flow had come on next day quite easily and without pain.

I have used Jamaica Dogwood in several other cases during the past week in which there was severe neuralgia, with very satisfactory results.

[Written for The Therapeutic Gazette.]

Jamaica Dogwood.

By F. T. Montague, M. D., Crawfordsville, Ind.

SOME months since I received a sample of the Jamaica Dogwood, which I gave a fair trial in a case of facial neuralgia, and found it to work charmingly. The patient was a lady 50 years of age. I found the patient with her hand to her face suffering most agonizing pain as she had been for some days and every day growing worse. I gave her as follows:

℞ Bromide potass., ʒss.
Fluid ext. Jamaica dogwood, ʒij.
Syrup, q. s. ad. ʒj♂.

M. Sig., one teaspoonful every hour until four doses were taken, and she was entirely relieved. The pain returned periodically every afternoon. I ordered the same dose repeated during three days, the pain each day growing lighter, and on the fourth day she was entirely free from pain, and has had no return since—six weeks ago. She had a similar attack a year ago in which she tells me her physician kept her entirely under the influence of morphia for six weeks, until she wore the disease out.

I have found the Jamaica Dogwood a most valuable anodyne, relieving pain without the unpleasant after-results that we find with morphia or opium, and I most heartily endorse all that has been said of its therapeutic value.

[Written for the Therapeutic Gazette.]

Rhus Aromatica—Liquor Ergotæ Purificatus.

By A. G Ward, M.D., Libertyville, Ind.

JEAN S., æt, 8 years, has been troubled with incontinence of urine for three or four years, and although compelled to evacuate the bladder late a night, and not allowed to take any drink after the evening meal, would invariably wet the bed, and often after being aroused in the night and made to urinate, would wet the bed before morning. Gave him a half drachm of Rhus Aromatica three times a day. In a few days he ceased wetting the bed except when allowed to retire without evacuating the bladder. After about two weeks' treatment the dose was given only at night. It is now three months since all treatment ceased, and he has not been troubled since. I have treated two younger children in the same family, in the same way, with the same remedy, and they are also well.

I am sorry to find that the Liquor Ergotæ Purificatus does not seem to act as well in the hands other practitioners as it has in mine. Whether this is the fault of the drug or some peculiar idiosyncracy of the patient I cannot tell, but this I know, it has never failed me in a single instance, and although I have used other preparations for the last twenty-fiye years, I have formed a preference for Liquor Ergotæ Purificatus, and I was rather surprised to receive a letter from a brother practitioner at Galena, Ill., stating that he had, "on the strength of my article in the GAZETTE," been induced to try it, and it had failed entirely, and at a time, too, when a reliable remedy of this class was sorely needed. He was forced to resort to the "Tampon," until he could get a more reliable article. Why it should have failed so completely in the doctor's hands I cannot tell. I have been placed in a situation exactly like the one described, and two doses of the Liquor Ergotæ Purificatus checked the flow entirely, and the case went on to a happy termination. If you can give any explanation I should like to have it.

[To condemn a drug or the preparation of a drug on the strength of a single failure is scarcely less unjust than it would be ridiculous to commend the same drug on the strength of a single success. The success may have been a mere coincidence with the giving of the drug, and the failure on the other hand is just as likely to have been a co-incidence. There are cases, moreover, in which the action of Ergotæ is notoriously slow, and is it unreasonable to suppose that the one referred to was one of this nature? The tampon not uncommonly stimulates the uterus to contraction, and in this case it may either have stimulated it or restrained the hæmorrhage until the action of the Liquor Ergotæ Purificatus took place. Certain it is that this preparation is definite in strength and contains the true ecbolic principles.

Another fact which may have been the cause of the failure reported is the presence in the market of various imitations of Liq. Ergotæ Purificatus, and which under a similarity of name are sometimes palmed off as substitutes for the genuine, assayed and scientific preparation. One of these is Liq. Secalis Purificatus which is very liable to be substituted. We know nothing of the merits of any of these imitations, but this we do know that the making of Liq. Ergotæ Purificatus involves a very thorough knowledge of organic chemistry, and that this preparation is materially different from any of the fluid extracts of secale cornutum from which the inactive and poisonous principles of the drug are not eliminated. —ED. THERAPEUTIC GAZETTE.]

Abstracts and Translations.

On Quebracho Bark.

Botanic-Pharmacognostic Essay by Dr. Adolph Hansen, Assistant at the Botanic Institute of Erlangen.

[Illustrated by three plates containing twenty-five lithographic figures.]

IN THREE PARTS. PART III.

ON QUEBRACHO WOOD.

The wood of Aspidosperma Quebracho possesses properties similar to those of the bark,* though in a less marked degree, and has been used in its stead, although, in future, the more active bark will undoubtedly be preferred to the wood, which latter, in consequence, will not receive the same pharmacognostic consideration. It, nevertheless, is of considerable interest on account of several anatomical peculiarities.

The Quebracho wood was first shown in 1873 at the Vienna Exposition among a collection of 104 varieties of wood obtained from four provinces of the Argentine Republic, bearing only the local name and without any further descriptive notices.† There was, likewise, a large collection of woods from the La Plata States at the Paris Exposition of 1878; these, however, bore their scientific names and explanatory notices. Among these appeared Lignum Quebracho Blanco, with a correct statement of its source, Aspidosperma Quebracho.‡

A communication respecting the wood has been given by Dr. J. Mœller.* The sample in my possession, was an entire transverse section obtained from Prof. Hieronymus, of Cordoba. The diameter of the woody portion, after the separation of the bark, which latter was about twenty millimetres in thickness, was twenty-nine centimetres, and from the number of rings it must have belonged to a tree about eighty years old, whence we may conclude that the increase in girth takes place slowly.

The wood is not of uniform color, the older wood being of a light chocolate brown, the depth of color decreasing towards the exterior, so that, passing through different shades, the younger wood appears yellowish, or of a light reddish-white. The wood is of exceptionally close texture and hardness and possesses a high specific gravity. With a lens we can discover numerous medullary rays and in the vascular bundles between them, vessels appearing as countless small pores.

A microscopical enlargement of the transverse section (plate 3, fig. 18,) shows this regular arrangement of the three principal constituents and gives us an insight into the structure of Quebracho wood. Between each two medullary rays (m.) of varying width, embracing from one to four

* Penzoldt Berliner Klin. Wochenschrift. 1880. No. 10.

† Officinal report on the Vienna Exposition of 1873 by authority of the Central Committee of the German Empire. Vol. II, p. 745.

‡ Report on the Agricultural Section of the Paris Exposition of 1878. Dr. L. Wittmack.—The useful plants of every zone. P. 28, 39, 70, 71.

* Report on the Paris Exposition of 1878. Raw material from the Vegetable Kingdom. Vol. VIII.

PLATE III.

Fig. 16.
110

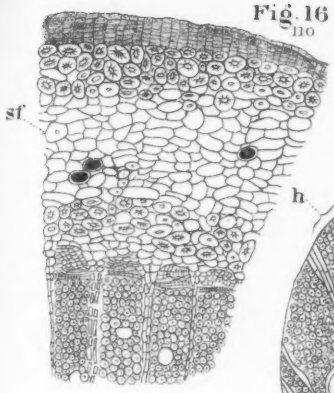


Fig. 17.

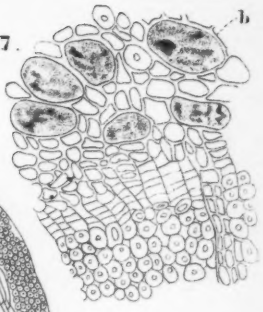
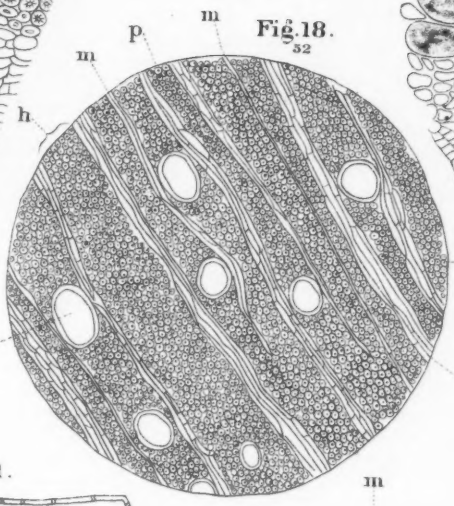


Fig. 18.
52



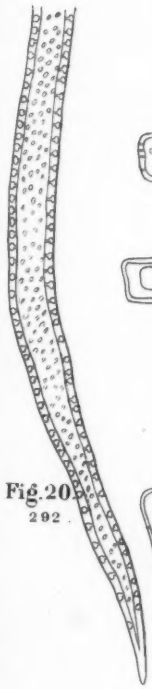


Fig. 21.
292

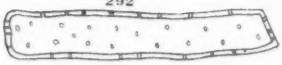


Fig. 22.
292

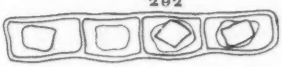
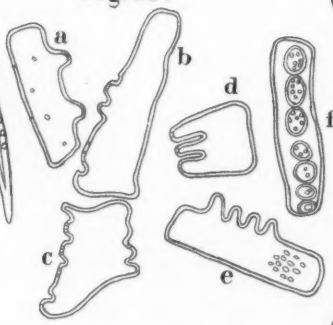


Fig. 20.
292

Fig. 23.



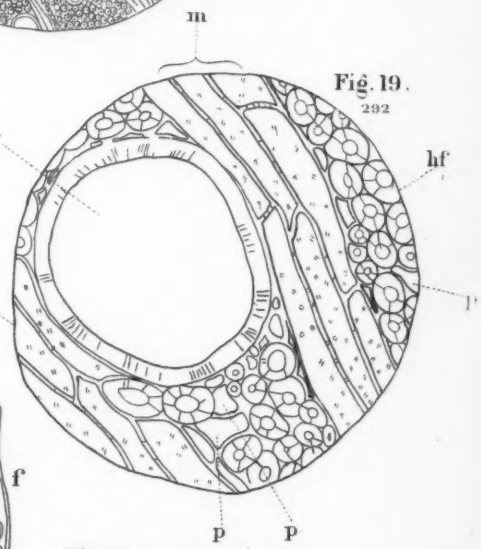


Fig. 19.
292

Fig. 25.
110

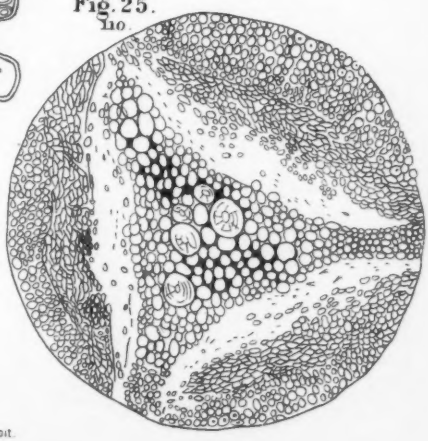


Fig. 24.
2

The Calvert Lith Co Detroit.

rows of cells, we find a woody layer composed of cells with small cavities and thickened membrane. Lying in this woody layer, differing more in size than in form, we find the vessels distributed. The woody layers, which are bounded by the medullary rays, appear at first glance to possess a very uniform composition; a closer inspection, however, even with moderate enlargements, shows that between the wood cells with thickened walls and minute cavity, we find other cells with larger cavities and more delicate membrane; they are shown in the enlargement of the transverse section (fig. 18) as white dots in the woody layer; a greater enlargement of a part of this section enables us to gain a better insight into these relations. In fig. 19, we see two medullary rays, with the enclosed woody layer, in which there is also a vessel. The medullary rays, (m) show nothing abnormal in their form or structure; they consist of prismatic cells arranged horizontally and radially in their longest diameter. A tangential and longitudinal section shows that the edges of the cells are slightly rounded, so that their form approaches that of a cylinder.

The walls of the cells are dotted. The transverse section of the vessels is usually circular or somewhat oval. The wood-fibres (h f,) are very characteristic; a transverse section shows them to be nearly circular, and a bundle of them consequently presents numerous intercellular spaces. The wall is thickened to a marked degree, in which we cannot, however, discover the existence of layers, but very distinct pore-canals are present.

The absence of any layers in their thickened membrane, causes them to refract light in a uniform manner, lending to the wood a peculiar, characteristic, shining appearance. Between the wood fibres and in the immediate neighborhood of the vesssels as well as at the boundary of the medullary rays are scattered parenchyma cells. (p.) A complete knowledge of the structure of the wood and the form of its elements is obtained, however, only from a comparison of both longitudinal and transverse sections. The wood-fibres are long and spindle-shaped, of a configuration denominated by Sanio as "libriform," which, however, on the authority of De Bary we simply call wood-fibres. The vessels are jointed at short intervals and their walls are thickly covered with small bordered pits.

A more definite knowledge of the details of its anatomical structure is obtained by maceration with nitric acid and chlorate of potash, by which the elements of the wood are isolated. In figures 20-23 these are shown separately, and it is only by this separation from the mass and each other that it is possible to discover certain peculiarities of form which would otherwise remain concealed. We find that the medullary rays are not composed simply of cells of equal length, but between them we find crystal-bearing cells of smaller size, usually connected in groups of three or four. Each single cell contains a crystal of oxalate of lime and also a mucilaginous substance of homogeneous structure. (Plate 3, fig. 22). It seems probable that a row of such crystal-bearing cells has been produced from a single cell of the medullary ray. The entire length of such a row of cells is, as a rule, equal to that of a cell of the medullary ray, and the fact of their remaining connected after the maceration, is also in favor of the view that we have only a chambered medullary cell before us.

The wood-fibres have a considerable length, as is shown by figure 20, which represents a part of one with its spindle-shaped extremity. The formation of the pits is remarkable. The pits of wood-fibres in most cases are not bordered. Bordered pits occur, however, in Quercus, Daphne, Liriodendron, Fraxinus and according to Sanio's statement, in Jatropha Manihot.*

Usually, little can be discovered of the character of the pits in wood-fibres, owing to their minuteness; in the foregoing case, however, they are distinguished by their size and prominence. They are bordered pits forming a relatively wide spherical chamber connecting by a narrow channel with the cavity of the cell; these canals show the usual cleft and crooked appearance. There is nothing remarkable about the vessels inasmuch as they conform to the usual type.

The parenchyma cells constitute the last element to be considered; these, though not showing any peculiarities in their transverse section when isolated, are found to have a very peculiar form, which was discovered by Sanio † and named by him conjugated parenchyma. We find therein finger-shaped protuberances of the membrane, perpendicular to their greatest diameter, usually occurring only on one side, and varying greatly in number, size and form, as shown by plate 3, (fig. 23, a-f). The membrane shows the presence of dots which have the appearance of delicately defined circles, which are, however, not distributed regularly on the walls, sometimes being grouped together in one place, while they are absent from the remaining portion of the wall; again, we find, that they are almost entirely absent.

Sanio's observation with reference to these finger-shaped protuberances, needs a correction in one respect, namely, in regard to the membrane being really continuous, although they appeared to him perforated. In the cells of Quebracho wood the continuity of this membrane is very apparent, as is also the fact of each protuberance being provided with numerous dots; this can be made plainer to the view by coloring sections of the cell membrane as in fig. 23, a-e. A very plain and satisfactory view can be obtained by observing these protuberances from above, as shown by fig. 23, f, which discovers to us the existence of the variable number of these small pits giving the appearance of a sieve to the end of the protuberance; when the protuberances end more pointedly there is usually but a single large pit present (fig. 23, e). The peculiarity of this cell-form has already been observed by J. Moeller, although he failed to notice the existence of pits, in consequence of which in his communication on Quebracho wood,‡ he has given us an erroneous illustration of the cells, which appear as if the pro-

* De Bary's Anatomy, p. 406.

† Sanio. Botan Zeitung, 1873, p. 94.

‡ Dr. J. Mœller, Anatomical Notes, Jarb. f. wiss. Botanik. Vol 12, part 1, plate 11, fig. 2.

tuberances possessed a large opening at their ends, which, in itself is highly improbable.

We see from the transverse sections (figs. 18 and 19) further confirmed by delicate longitudinatinal sections through the wood, that these cells lie isolated between the wood-fibres and surround the vessels in larger numbers; by means of these protuberances, they are connected partly with the vessels and partly with each other. In the lighter-colored, younger wood, they contain numerous large starch grains; in the heart-wood, however, instead of starch, they are filled with a brown substance, as is the case with the medullary rays; the brown color of the heart-wood is owing to the presence of this substance which has already been referred to. This substance is soluable with difficulty in alcohol, more easily in ether and turpentine, if we allow a thin section to stand one or more days in contact with the solvent. In contradistinction to other woods which pass under the name of "Quebracho," we find that the vessels and wood fibres are invariably empty. At both the Universal Expositions the wood of Quebracho Blanco was designated as a tanning material; it is, therefore, somewhat remarkable that we can discover no astringent substance on micro-chemical investigation; neither salts of iron or chromic acid produce the usual characteristic reaction, even when the wood is macerated for a considerable time in contact with the reagents.

Even the bark contains but little astringent matter; from the report of Paschkins* it contains only 3.48 per cent. It must be remembered, however, that tanning materials are of considerable importance for the Argentine Republic and even poor material finds ready application for the reason that large numbers of cattle are annually killed, chiefly for the value of their skins, the preparation of extract of meat having but lately made their flesh of any value. Tanning is, therefore, a very important branch of industry, even though pursued under a great many difficulties caused by the climate, which induces rapid decomposition. The material which is principally used for tanning seems to be, however, the wood and bark of Quebracho Colorado, containing, according to Jean,† fifteen per cent., and according to later authorities even from twenty-one to twenty-three per cent. of astringent matter. This wood has found its way to Europe and also occurs in commerce, here, as a tanning material, either in a chipped condition or else use is made of the extract manufactured therefrom. The similarity of names makes it easy to be mistaken for the wood of Aspidosperma Quebracho Blanco. I append therefore a few of the characteristics of the wood of Quebracho Colorado, and also of another wood occurring in commerce under the name of Quebracho. The wood of Quebracho Colorado (Loxopterygium Grisebach) is extremely hard and dense. I have in my possession a portion of a twig, with bark attached, of five centrimetres in diameter, for which I am indebted to Dr. Vulpius, of Heidelberg. The bark is much torn and fissured from the large development of the corky layer, externally of a dirty yellow to a dark-brown color and covered with numerous remains of lichens. The surface of a transverse section of the bark is light-brown, discovering many dark parallel corky layers, and at right angles to these, numerous lighter colored lines which are the medullary rays. It is very difficult to mistake this bark for that obtained from Quebracho Blanco. Microscopically, the bark is characterized by the very regular arrangement of its sclerenchyma. The parenchyma of the bark is traversed in a radial direction by numerous medullary rays, between which are arranged with great regularity, rather lengthy, tangentially extended groups of sclerenchyma fibres, which consequently form concentric zones, interrupted by the medullary rays, thus giving to the bark a mapped appearance. These sclerenchyma fibres are also surrounded by a sheath of crystal-bearing cells, possessing a very similar appearance to those in the bark of Aspidosperma Quebracho. They are, however, much smaller in diameter and do not lie alone, but exist in groups of a nearly rectangular form. We find, in addition, in the bark-parenchyma a yellowish colored mass of homogeneous appearance, seemingly composed of greatly thickened cell-membranes; they are, however, the compressed membranes of collapsed cells, very probably sieve tubes. The coloration of the wood varies with its age, the heart-wood being dark-brown and the younger wood of a light brown color. It is composed of wood-fibres, wood parenchyma, vessels and medullary rays.

The cells of the wood parenchyma with their dotted walls form a much more considerable portion of the wood than is the case in Aspidosperma Quebracho. They are distributed principally around the vessels and contain a large proportion of starch. In the wood-fibre the characteristic pits of Aspidosperma are absent, but they are characterized by another peculiarity; the primary membrane is thickened somewhat, the secondary deposit by which the cavity is narrowed has its boundary sharply defined from the remaining membrane, a fact plainly discoverable after treatment with iodine solution. This structural peculiarity distinguishes at once the wood of Quebracho Colorado from that of Quebracho Blanco. The vessels are oval or circular, of different sizes, frequently occurring in groups of two or three, and show only in exceptional cases the formation of hernoid protrusions. They are filled with a mass varying in color from yellow to brown, soluble in water and alcohol and giving a precipitate of a blackish-green color with salts of iron.

Another sample of the wood designated as "Quebracho wood," and obtained from Herr W. A. Büdingen, of Frankfort, differs from both of the above. The origin of this wood could not be satisfactorily determined; it possessed a uniform reddish-yellow color; it is also very hard and dense, but does not possess the coherence of the other two, being of an irregular splintery structure and more easily split. In a chipped condition, it may be confounded with the wood of Aspidosperma Quebracho, a transverse section showing even some similarity with the latter. A thorough examina-

* Report of the Paris Exposition, vol. VIII, p. 26.

† Bulletin de la soc Chinique, 1878, vol. xxviii, p. 6. Max Siewert, Tanning materials of South America. Pharmaceutical Journal and Transactions. Third series, vol. viii, p. 548, 1877-78.

tion, however, permits of positive distinction. The wood fibres do not possess a circular form, but are somewhat angular and consequently lie closer together. The bordered pits of Aspidosperma are absent here, as also the parenchyma cells so characteristic of the former. The vessels are thickly filled with hernioid protrusions which contain a substance of a brown color; this substance is also found in the wood fibres and medullary rays. It is easily soluble in alcohol, with difficulty in water, giving in both solvents a blackish-green coloration with iron salts, and is consequently an astringent substance. It is not soluble in ether or turpentine. This substance is frequently found secreted in such quantity, that it exists in large lumps in the space between the elements of the wood, and appears also at other points in the shape of blood-red transparent layers.

THE PITH.

In making a close examination of a transverse section of a two to three year old tree of Aspidosperma Quebracho, the observer's attention is especially drawn to the pith which appears in the shape of a regular triangle. This configuration is caused by the peculiar form and arrangement of a portion of the pith mass. Usually the pith of woody dicotyledons is composed principally of parenchyma cells, which increase in number while decreasing in size in proximity to the wood, but still, even near the medullary sheath, are not remarkably different from the cells composing the principal mass of the pith. Aspidosperma Quebracho, however, shows peculiar relations of the above region, inasmuch as it is composed of two different elements. The central portion consists of spherical cells, between which are found isolated sclerenchyma fibres. Towards the exterior, both the form and size of these cells change to a narrow-meshed tissue leading to the woody ring. This tissue is already present in a shoot of a years growth (plate 2, fig. 15, m. s). The cells thereof are small, of irregularly triangular, or quadrangular form, possessing a great similarity to those of the bast. In a very young twig the form of a transverse section of the pith is oval, assuming, however, in older twigs, the form of a regular triangle (plate 3, fig. 25). With the increase in girth of the trunk from secondary growth, the bark not keeping pace with the growth of the wood and bast a considerable pressure is exerted * on the bast portion. This pressure extends even to the pith and causes the alteration of its form. In the specimen under consideration, the following conditions and results may be observed: The wood, owing to the solidity of its cells, is capable of resisting the pressure without alteration of its form. When this pressure extends in an inward direction the central, spherical cells of the pith, exert a certain opposing pressure, as long as they are turgescent. The portion least capable of sustaining the pressure is the tissue composing the outer medullary layer, and consisting of flat cambiform cells, which consequently must yield to the simultaneous internal and external pressure. The result is that a portion of this cellular tissue on being subjected to pressure as above described, does yield, and especially the innermost part which is adjacent to the spherical pith cells. The pressure is exerted even to the degree of obliterating the cavity of the cells. These masses of cell-walls lying close together present the appearance of a homogeneous mass which in the form of three semilunar plates encloses the pith. The appearance of this triangular section leads us to the conclusion that the pressure on the pith cylinder is not exerted equally; were such the case, the pith should have a circular form. The fact of its taking the shape of a triangle is an evidence that the external pressure is strongest on three sides. The cause of this unequal pressure appears to be immediately dependent on the verticillate arrangement of the leaves. At all events the pressure must be considerably less at the point of insertion of the leaves, than at other parts of the circumference, an opposing force being exerted by the growth of the leaves.

* H. de Vries. Flora, 1872, No. 16.

EXPLANATION OF PLATE III.

Fig. 16. Transverse section through wood and bark of an older twig of Aspidosperma Quebracho.

Fig. 17. Section through bast portion similar to the one represented in fig. 15 with secretory (oil) ducts, b.

Fig. 18. Transverse section of the wood of Aspidosperma Quebracho.

Fig. 19. A portion of same more highly magnified.

Fig. 20. Part of an isolated wood-fibre with bordered pits.

Fig. 21. Cell of the medullary ray.

Fig. 22. Chambered cell of the medullary ray containing crystals.

Fig. 23. Isolated parenchyma-cells of the wood with their protuberances.

Fig. 24. Transverse section through a twig of Aspidosperma Quebracho about three years old, with triangular pith.

Fig. 25. Transverse section through pith and medullary sheath more highly magnified.

The value below the number of each figure designates the microscopic enlargement.

[By Dr. Isidor Glück, of Vienna, formerly of London, New York, Liverpool and Buda-Pesth.*]

On the Use of Blood (Essence of Meat), as a Dietetic and Medicinal Agent.

The author had under treatment several consumptive patients in Kaschau, about six years ago, in which cases there was no hope of alleviation by medication, but in which diet was a paramount consideration; inasmuch as these patients were not able to retain ordinary food, but immediately vomited such, he was induced to try the use of fresh blood, in combination with raspberry water and soups. The results were so satisfactory, that he was led to administer it in other cases as a nutriment. At a later period, having removed to Liverpool, opportunities were presented of testing this method of administration, also in anæmic, chlorotic patients. In order to determine the proper proportions of vegetable vehicle and fresh blood, Dr. Glück conducted a number of experiments in the abattoir of Birkenhead, opposite Liverpool with the blood of oxen, cows, calves, sheep, lambs and pigs. The ladies of Birkenhead provided the necessary vegetables in the form of rice, sago and barley, either alone or mixed and cooked to to a thick porridge, as also mashed potatoes, carrots, etc. The blood, called by him "essence of meat," because it contained the essential consti-

* A paper read and demonstrated before the Medical Convention held at Dresden, September 22d, 1868.

tuents of meat, was sometimes obtained from the arteries, again from the veins, and at times from both together, usually, however, in the ordinary method of killing by the severing of the blood vessels at the throat, and then mixed in different ways with the vegetable foods. After many laborious, tedious and costly experiments, he came to the conclusion that it was most expedient to receive the fresh blood in shallow vessels and assist its coagulation by pouring from one vessel to another and stirring it with the hand, thus bringing it into contact with a large quantity of atmospheric air. The coagulum was partly expressed, then chopped finely and added to the food prepared as above mentioned with the addition of a quantity of liquid blood. He also prepared for the use of the sick an essence of meat jelly from calves feet with the addition of both chopped and liquid blood which was alone sufficient to sustain life; this jelly was also given in exceptional cases to healthy consumers.

The results were so satisfactory that Dr. Glück was induced to make a proposition to the Committee of the Central Relief Society, in Liverpool, to alter the soup distributed by them from vegetable to animal, by the addition of essence of meat. The soup there distributed, consisted of rice, sago, barley, water, salt and syrup, to which essence of meat was then added. Dr. Glück demonstrated the method of the addition of the blood to warm rice soup, and showed the jelly prepared with essence of meat which was partaken of by those present. The proposition was acccepted by the Committee and the distribution of soup with essence of meat was continued from the 27th of March until the 9th of April, and given to consumers only at their expressed request, the choice of soups being left entirely with them. From the report of the committee, embodying the experience of the consumers and certified to by Inspector Thornton, the following deductions may be made:

1. The soup was rendered much more nutritious by the addition of the "essence of meat."

2. No aversion existed to the addition of blood, but rather a preference in many cases.

3. The consumption of the soup was continued even after it had been communicated that essence of meat consisted of nothing but fresh blood.

4. That the deep-seated prejudice against the consumption of blood, entertained by the English, was overcome by the force of hunger.

5. That the theoretical objection that fresh blood used as a food, was deleterious to health was a fallacy, as has been amply proved, inasmuch as numerous inquiries made by himself and Inspector Thornton failed to elicit the discovery of a case of sickness even though nearly 300 children had partaken several times daily of six ounces of chopped and fresh blood, and several individuals even of from eight to twelve ounces daily. Although the success of these experiments was certified to by the Committee, still the rapid introduction of this method of alimentation in other institutions and hospitals was prevented only by religious prejudices, which were not even removed by the replies obtained from the Bishop of London and the Archbishop of Canterbury, to whom Dr. Glück addressed queries regarding the permissibility of the use of blood as a food and medicine, their replies being too evasive.

It is conceded that a transformation of the blood takes place when administered in this way with warm soup, for under the successive action of the saliva and the chlorpeptohydric acid of the stomach it becomes changed to either a-b-c peptone or para-meta peptone, and finally through the action of the gastric juices and formation of salts of the

Statistical Table of the Distribution of Blood (Essence of Meat) in the Soup-House, Flint Street Liverpool, from March 27th to April 9th.

Date.	Men.	Women.	Boys.	Girls.	Total.	Quality of the Blood.	Quantity, dose per capita.	Total quant. ozs.	Remarks.
March 27th	8				8	Blood of Calves from Birkenhead.	1-2 tablespoonful.	4	Had no more fresh blood as there was no slaughtering done on Friday or Saturday.
" 28th	24	3	17	4	48		1-2 tablespoonful.	30	
" 30th	31	3	41	5	80	Oxblood, 17 lbs.	½-2 ounces.	96	Distribution of the Essence began at 12 o'clock, with and without chopped blood.
" 31st	34	12	58	11	115	Coagulum, 1 lb.	½-2 ounces.	104	
April 1st	45	6	30	8	89	Sheeps blood.	½ ounce.	163	Several partook of 3 to 4 ounces.
" 2d	80	4	23	6	115	Calves blood.	⅓ ounce.	140	Hachée mixed with soup.
" 3d	60	10	15	25	110	Coagulum.	½ ounce.	160	
" 4th	40	5	30	3	78	Ox-blood with Hachée.	½ to 2½ ounces.	89	Temperature rose to 119° F. in the sun, in spite of which there was only a small reduction in the number of consumers, which number remained stationary after the initial falling off.
" 6th	42	2	25	5	74	Sheep's blood and Hachée.	½ to 3 ounces.	61	
" 7th	40	5	32	5	82	Ox-blood with Hachée.	1 to 2 ounces.	160	
" 8th	50	1	12	1	64	Ox-blood and Sheep's Blood.	Hachée in varying doses.	149	Very little was sent across the Mercey as mostly children were sent for it who were incapable of using judgement.
" 7 & 8	3		32-62	4	101	Ox-blood and Hachée.			
			40	60	100	Blood of Calves, Sheep and Pigs.	Hachée in varying doses.	300	Number of women who demand the soup very limited.
	457	51	117	439	1064			1456	

N. B.—The word Hachée above used is the name given to the chopped Coagulum.

fatty acids through the agency of the bile, is absorbed in a dissolved condition.

Dr. Glück does not regard the essence of meat as a specific in any disease, but as a dietetic agent or form of nourishment which may be easily incorporated with vegetable foods. The requisite amount of vital force can only be obtained from a mixture of animal and vegetable substances; no physician in the present state of science would think of advocating strict vegetarianism. Dr. Glück indulges the hope that his experiments which have been successful, whether viewed from the standpoint of medicine, or political economy will not meet with any religious prejudices in Germany, but will find adoption both in soup-houses and in hospitals, for chlorotic and anæmic patients.

During the discussion which ensued, Dr. Kœhler enquired whether the satisfactory results of this method of alimentation were not traceable to the quantity of iron contained in the blood, for in such cases the administration of milk combined with iron should have produced the same effect without the distasteful features of the blood, recommending at the same time a combination of milk with saccharated oxide of iron, which can be combined with the vehicle in the proportion of thirty per cent., without causing coagulation.

This theoretical objection was answered by Dr. Glück with the report of a case of an Israelite residing in Hull, Mendelssohn, by name, of a lean anæmic, weak constitution, æt. 61 years, who had formerly been using iron preparations in conjunction with milk and without result; a month ago he consulted Dr. Glück in Liverpool and was treated for eight days, taking daily eight ounces of chopped blood, combined with liquid blood, in his ordinary food, at the same time ten drops of chloride of iron were administered three times daily before meals. This patient was much strengthened at the end of that time and returned to Hull, continuing the essence of meat with iron.

[Translated for the Therapeutic Gazette. By J. v. d. Heide, Hamburg.]

Fluid Extract Caroba, for the cure of Syphilis with Directions for its use.

With the continuous advance in medical science it became a problem of the greatest importance to find a curative agent which could replace mercurial treatment in all forms of syphilitic disease and at the same time accomplish the desired restoration without leaving a possibility of the affected parts, as well as the general health, being endangered in the future through deleterious properties inseparable from those remedies.

The most prominent of contemporary physicians, as Ricord, Bouchardat, Larrey, Cuisinier, Dupuytren, Gilbert, etc., etc., who have prosecuted the most extended studies into syphilitic diseases, and who have also the most important clinics, commissioned the most enterprising physicians of Brazil to extend their researches for the discovery of a native medicament which should possess the desired curative properties in this class of diseases.

So it came that the well known Dr. Bompani, who practised for a long period in Rio de Janiero, and there presided over a large clinic learned after diligent inquiries of a plant used by the natives and among them also by their so-called medicine, men with the best results in such diseases.

In this way a knowledge of Caroba leaves and their marvellous efficacy was first communicated to scientific men, which was speedily followed by numerous and critical trials of its virtues, by which it was soon discovered that Caroba was really entitled to the first rank, because the oldest and most stubborn cases of syphilis finally succumbed to its continued use.

It has thereby been ascertained that Caroba could be used with the best success in the following diseases: chancres, buboes, syphilitic ulcers as well on the body as if the throat, syphilitic eruptions, impetigo and psoriasis, discolorations on the surface of the body, swelling of the joints, frequent nervous headaches, chronic catarrh of the urethra, pains in the bones from misuse of mercurials and rheumatism. In the most stubborn of above cases which had resisted treatment by all other known methods, a radical cure followed a proportionate use of fluid extract Caroba.

Various foreign druggists soon brought this medicine into such form as is to day offered to the public, really excellent strong and permanent.

With need of a too rigorous diet, the medicine is easily administered, of a not unpleasant taste and an excellent stomachic tonic.

Without continued use the results are surprising. The freshness of color in the face returns, the blood and other vital fluids are restored to their normal condition through removal of the impurities remaining there, and a complete renewal of the general tone and condition of the bodily functions is brought about.

In the above mentioned diseases the dose of Caroba extract is a tablespoonful three times a day, previously diluted with three times its volume of water. In very old or chronic cases the dose should be increased to twice the above amount.

Foods which contain much fat, and sour, strongly salted or peppered dishes, should be avoided.

[From the Algemeine Wiener Medizinische Zeitung, No. 17 to 26, 1880.]

Condensed Report of a Case of Chronic Bronchitis, Treated with the Syrup of Silphium Cyrenaicum—External Use of the Plant in Erysipelas and Burns.

The syrup is an amber-colored aromatic liquid of agreeable taste and was prescribed by Dr. Joseph Loeoy, in Attenreichbach. The patient, a man of 56 years of age, stated that he had been suffering for twenty years from more or less acute bronchitic difficulties, which were most severe in spring and fall, and at these periods became particularly troublesome at night. The patient had already used—under the advice of the best physicians—everything known in therapeutics for his difficulty, but with only partial and temporary relief. At the time he came under my care, he was still in good condition, though somewhat thinner than his usual habit, with somewhat emaciated face, the thorax well developed and strongly ribbed; the percussion shows nothing abnormal with the exception of an emphysema of the lungs (a lowered

situation of the liver and and a narrowing of the space of the heart's impulse). The auscultation shows, particularly in the region of the middle and lower portions of the lungs rales, whistling and bubbling ronchi.

The extremity of the lung seems to be entirely free, the heart tones are clear and the secondary pulmonary tone is plainly stronger. The liver appears to project the width of three fingers below each of the right ribs, the left lobe being also somewhat enlarged and painful to the touch. The lower extremities, especially around the ankle joint, are somewhat œdematous, the veins of the lower portion of the thigh being varicose. The patient suffers from dyspnœa, has severe paroxysms of coughing; his sleep is disturbed; appetite feeble; the sputa is slimy, putrid and profuse in quantity. The patient is feverish, his temperature during the day, as appears from observations made during two weeks varying between 37 8-10° and 38 5-10° C. An examination of the urine shows albumen in small quantity; in the sediment were found red blood corpuscles and fatty epithelial deposits from the kidneys.

The syrup of Silphium cyrenaicum was administered in doses of a tablespoonful five times a day, diluted with water. The results were very satisfactory, the expectoration being free, the sputa decreasing in quantity and improving in character. The after complications diminished, the appetite returned and, in short, after two weeks of administration of this remedy, the improvement was so marked, that both the patient and myself were entirely satisfied. The tincture has been used with considerable success in the treatment of erysipelas and external burns and frost bites, after dilution with from four to eight parts glycerine, the application being made with a small brush.

[M. Rabuteau in Gazette Medicale de Paris, August, 1880, No. 32.]

Application and Action of Bromide of Ethyl and its Influence upon the Growth and Germination of Plants.

After a short introduction the author says as follows:

1. "Bromide of Ethyl always proved itself a very efficient anæsthetic, and was used with good results both by myself and other physicians both in France and America. Further experiments overcame the few doubts that existed about its anæsthetic properties."

2. "After using Bromide of Ethyl internally myself, I applied it in two cases of inflammation of the stomach. Both times I had good results. I found that it had neither a caustic nor an irritant effect on the mucous membrane. It stopped all pain at once and did not diminish the appetite in the least, but, on the contrary, increased it. The latter result was not at all surprising to me, since Trousseau had made the observation that common ether increases the appetite."

3. "I applied vapor of Bromide of Ethyl in cases of whooping cough, measles, and common cough with favorable results. In the last case, I tried it personally, and found that it gave immediate relief. Taken all in all, Bromide of Ethyl is a valuable anæsthetic and sedative. It produces anæsthesia far more rapidly than chloroform, and the patient recovers more quickly than after the use of chloroform; at least, according to my experience with animals."

I found it very valuable in stomachic cramp with irritation; in earache, when introduced into the ear on cotton wool, it immediately relieves the pain. Of course, chemical purity is essential.

Besides this, the author announces that he made experiments with vapor of Bromide of Ethyl, such as Claude Bernard with chloroform, to notice its effect upon the growth and germination of plants, which are very interesting. It has no great hindering influence upon the vegetation. Since this is not of general importance, however, it may be omitted here.

[From the Zeitschrift a. ö. Apotheke Vereins, April, 1880.]

On the Relation of Ozone to Health and Disease.

In a paper read by Dr. Day at the Convention of the Sanitary Institute of Great Britain, on the above subject, the author gave a history of this peculiar gas with notes on its hygienic and prophylactic action, and the views presented by him if correct, certainly are deserving of consideration. After explaining successively, the theories of Schönbein, Williamson and Odling regarding the nature of ozone, he described the pathological effect of this form of oxygen and brought forward facts which seemed to throw some doubt on the generally received idea that ozone and ozonized dietetic or medicinal remedies are universally useful. He instanced the death of animals resulting from exposure to ozonized air with symptoms resembling those of acute bronchitis, and announced his belief that ozone when present in the atmosphere in excess is capable of causing catarrh, bronchitis and even pneumonia, though, of course, it is very questionable whether such an excess ever occurs in nature. However, as has been observed by Dr. Moffatt, during periods when ozone has been present in the atmosphere in large quantities, the following diseases occur very frequently: apoplexy, epilepsy, vertigo, neuralgia and diarrhœa. The view should not be received, however, without further corroborative proofs, but may well serve in directing the employment of caution in the administration of ozone for the disinfection of sick rooms and the prevention of contagion. The absence or scarcity of ozone, has been too frequently regarded as the cause of zymotic diseases, though we cannot doubt that such a condition bears a definite relation to the occurrence of cholera, inasmuch as observations have shown that in the year 1864, in the Presidency of Bombay, the disease was decidedly on the increase as soon as the quantity of ozone in the atmosphere either diminished or was altogether absent, while on the contrary, cholera cases decreased in number as soon as the percentage of ozone had arrived at a maximum. Similar results were obtained from the observations made in Strasburgh, in 1854-5, still further confirmed by the experiments of Glaisher and Moffatt. It is questionable whether other agencies exert an influence in increasing or decreasing the progress of the disease. Among the disinfecting agents at present known, ozone is the most certain and least offensive, destroying germs of contagion of whatever kind.

[From the Journ. de Pharm. et de Chemie., 1880. By Dujardin Beaumetz.]

Febrifuge Properties of Cedron Seed.

The nut or bean of Cedron is the fruit of a tree growing in New Granada, Columbia, of the Simarubaceæ, systematic name Simaba Cedron. In America this fruit has the reputation of being a certain remedy for hydrophobia, snake-bite and fever, but of these wonderful properties it has been proved to possess only those of a febrifuge. It has already been pointed out by Dr. Coignard that the Indians of the western coast of Central America, as well as on the opposite Mosquito Coast, are in the habit of using this fruit in one-half drachm doses during the period of the chill, but not in the intermittent stage. The author was able to obtain the same results in fever cases after quinia had been unsuccessfully administered. It appears, however, from his investigations that implicit confidence cannot be placed upon this fruit, for while one fruit may act powerfully, another one is devoid of activity; it would therefore seem advisable to isolate the active principle and make use of this.

Levy obtained therefrom a crystalline substance named "cedrine" possessing a taste even more intensely bitter than strychnia and consequently worthy of consideration. Tanet has also called attention to an alkaloid of the fruit named by him "cedronine," said to possess energetic action in the dose of a milligramme. From these observations it would appear that a thorough chemical examination of the Cedron Seed would be attended with remunerative results.

[From the Anzeigen-Blatt zur Zeitschrift des Allgemeinen Œsterreich. Apotheker Vereins, Aug. 1880.

Additional Contributions to the Literature of Boldo.

A valuable paper has been contributed by Prof. F. A. Flueckiger on the above subject in the Botanische Zeitung, 1880, No. 27, from which we make the following extracts:

"Boldo has already been mentioned in 1725 by Feuillee of Chili, but this mention leaves us in doubt as to whether the leaves of Peumas are meant or those of Boldo Chilianum, (Nees.) which belong to the family of Lauraceæ. According to Herr. v. Heurck in the Journal de Pharmacie d' Anders, the leaves of the latter are usually one decimetre in length and six centimetres in width, though often considerably smaller. An exact comparison of both varieties of leaves is to be desired. The leaves of Boldo, of either or both sorts, appear to have first reached Europe in 1867, on the occason of the Paris exposition. A very short notice of them will be found in the Journal de Pharmacie et de Chemie, xx., 1872, p. 223, but from which it does not appear whether Peumus or Boldo, was under consideration. A statement is made that in Chili sheep have been known to recover from a disease of the liver after eating of Boldo leaves. The old genus Boldo of Feuillée has been recently referred to Krytocarya by Bentham and Hooker. The description of Boldo leaves, occurring in Vogel's Commentary in the Austrian Pharmacopœia, 1880, p. 102, is identical with the one already quoted as emanating from Prof. Flueckiger, with the difference that Vogel found starch grains enclosed in the cholorphyll of the spongy parenchyma, whereas, in this case, in spite of repeated examination of the sample, no starch could be found; it is very possible, however, that its absence may have been due to the age of the leaves, though a careful assortment of both small and large leaves was not neglected; another statement in confirmation is the reported presence of considerable quantities of tannin."

Correspondence.

Replies.

Liatris Scariosa, Brunella Vulgaris.

DR. PALMER, Grand Haven, Mich.—The plant sent as Devils-Bit, (Indian name), Neuralgia root, or Indian Button-root, is the Liatris Scariosa, Wild, a very showy and ornamental species, whose striking appearance has given it the common names of blazing-star, or gay feather, and the solid, resinous corm of which, having been employed to some extent to cure the bite of the rattlesnake, has received the name of Button Snake-root or Rattlesnake's Master. The species has a wide range, occurring from Canada westward to Minnesota, and southward as far as Louisiana, and has attracted considerable attention and interest on the part of practitioners, as various articles in the Medical Record, the American Journal of Pharmacy, etc., indicate. It is liable to be mistaken for other species of Liatris which resemble it rather closely, particularly L. Spicata, which has nearly the same geographical range, about the same height and general aspect, and springs from a similar solid resinous corn. It is not probable, however, that the distinction of these two species is of much practical importance, as they are believed to possess essentially the same properties, (See recent article in National Dispensary.) A brief description, however, of the species in hand, L. Scariosa, may prove serviceable.

Stem two to five feet high, from a solid tuberous rhizome or corm, which is an inch more or less in diameter, rounded or irregular ovate, giving off numerous thread-like roots below and bearing the remains of old stems on the upper surface, brownish externally with the bark exfoliating in thin scales, whitish or grayish within with alternating band of darker color. Odor aromatic. Taste warm, aromatic and resinous. Leaves lanceolate, long, petioled below, the upper ones linear and much smaller, roughened. Heads in a long and narrow raceme, twenty to forty-flowered, depressed globose; scales of the involuco oborate, obtuse, purplish; flowers handsome rose-purple; achenia terele, ribbed, pubescent; pappas rough but not manifestly plumose to the naked eye.

The other species of this genus which are of less common occurrence in the northern states can readily be identified by the descriptions in Gray's Manual or other common descriptive works. It has been claimed that all of the species with resinous corms possess valuable properties.

The sample sent as Diarrhœa weed is Brunella Vulgaris L., the common Self-heal or Heal-all of the old herbalists, by whom it was held in high esteem. It is no longer so much as mentioned in

modern dispensatories and appears to have lost whatever reputation it may have enjoyed in former times. It is of frequent occurrence in the British Islands and appears to have been introduced into this country from Europe, where it has been employed far more than with us, but its use seems to have become obsolete.

The remaining sample is a good specimen of Pedicularis Canadensis L. or Lousewort, upon which we have reported in previous numbers of the GAZETTE, and which appears to be attracting the attention of a number of our correspondents. We are glad to learn of its common appellation as "Indian Pile Root," which seems far more appropriate than any of the other common names of the plant by which it has hitherto been called.

Verbena Bracteosa.

DR. T. B. JACKSON, Macon City, Mo.—Stems and fruiting spikes of Verbena bracteosa, Michx, one of the rather common species of Verbena or Vervain which are scattered pretty widely over the United States, and often attract attention on account of their peculiarities of habit or their very distinctive botanical characters. They are closely related to the cultivated Verbenas so many of which are esteemed for the beanty of their flowers and their peculiar fragrance. One of the European species, Verbena officinalis L., had at one time a high reputation as a medicinal plant, it was used "in affections of the bladder and particularly in calculus," and the flowers "were held in great repute, like those of the Luprasia or eye bright, as a remedy for defective vision;" even in later times "the suspension of the root around the neck by a white riband has been gravely recommended for the cure of scrofula." As an indication of the superstitious esteem with which this plant was regarded, may be cited an old English epigram which runs as follows:

Hallowed be thou, Vervein
As thou growest on the ground,
For in the Mount of Calvary,
There thou was first found.
Thou healedst our Savior Jesus Christ,
And stanchedst His bleeding wound;
In the name of Father, Son, and Holy Ghost,
I take thee from the ground.

The species in hand, V. bracteosa Michx., occurs in our Northern States as far as Minnesota and extends form there through Missouri, Illinois and adjacent States to Kentucky and Southward. It is a spreading plant, rough hairy, with variously cut and pinnatifid leaves, and particularly distinguished by its leafy-tracted spikes of small flowers, which produce in fruit four narrow seed-like nutlets. Its taste is bitter, like that of several other species of Verbena. It has been employed as an alterative in scrofula but is not recognized in the latter and best works as deserving of confidence.

Berberis Aquifolium.

I have derived so much benefit from Berberis Aquifolium that I wish to publish it to the profession. As a tonic and alterative the drug has no rival. To give a little idea of its virtue I will report a case which is sufficient to convince the most skeptical. March 15, 1880, Mrs. B., æt. 62 suffering from salt rheum and erysipelatous eruption of thirty years' standing. Her limbs to knee, and arms to elbow were covered with an eruption interupted only by deep fissures. Appetite poor and bowels so constipated as to necessitate from twenty to forty Ayers' pills to produce an evacuation.

As she had exhausted the Pharmacopœia in vain I had but little hope of relieving her, and certainly no idea of a cure. I, however, placed her on Berberis Aquifolium, commencing with 20 drop doses three times daily. Externally I applied ung. zinci. oxidi, with chloral hydrate. In two weeks the eruption had entirely disappeared from her limbs, the appetite was good and the bowels regular. The eruption upon her arms was fading and I increased the Berberis to 25 drops 3 times a day, and continued the ointment as before. From week to week the eruption steadily disappeared until May 1st, when she discontinued the medicine. On the 10th had a recurrence of eruption but which was slight, and disapppeared on resuming the Berberis. The medicine at this date (Sept. 7) has been discontinued for some time and the patient is well for the first time in 30 years.

I have also used Berberis Aquifolium in scrofula with happy results, enlarged lymphatic glands disappearing very readily under its use.

B. B. GROVER, M. D.

RUSHFORD, N. Y.

Coca Erythroxylon.

Is Erythroxylon Coca a remedy for the Opium disease? In my hands it has failed most signally. The preparation used was the solid extract of the leaves, bearing the label of Parke, Davis & Co. The dose to commence with, was five grs. gradually increased to 1 drachm every two or three hours, without any perceptible effect except nausea and a sense of disgust for the medicine. Was the preparation inferior, or is Coca a failure? send in the evidence, for and against. Let the case be investigated and judgment rendered.

J. A. SNIPES, M.D.

SEARCY, Neb.

[It gives us great pleasure to reproduce the above. It is the first report we have received of the failure of Coca to bring the desired relief and it would be interesting to know whether the failure is attributable to the drug *per se*, or to causes peculiar to the patient to whom it was administered. While it would be as absurd to condemn on article because of a single failure as to commend it because of a single success, the report of such failures as may occur is necessary to enable a correct estimate to be made of the real merit of the drug. The most that can be hoped for in any drug is a high average of success in a large number of cases, and it is only by reporting failures as well as successes, that any drug can be assigned its proper position as a therapeutic agent. ED. THERAPEUTIC GAZETTE.]

Liquor Ergotæ Purificatus.

I have employed Liquor Ergotæ Purificatus for hypodermic use for nearly a year and with quite an amount of experience in its administration I have reached the conclusion that it is one of the most reliable preparations in the market, and since I have commenced its use I have given

it the preference over all others, including those of our most reliable foreign and native manufacturers.

In the case of one patient suffering from an immense fibroid of the uterus which at one time nearly filled the abdominal cavity, reaching far above the umbilicus, I have given daily hypodermics for over six months and have seen no local ill effect, save one little subsequent point of inflammation which subsided without suppuration. The therapeutical effect has been more than was anticipated. My supply of the preparation becoming exhausted I substituted the ordinary fluid extract for some little time, very much to the dissatisfaction of the patient, however, who complained bitterly of the acute soreness which it caused. She has learned to distinguish between the purified liquor and the other preparations which I have used and can detect the change the moment I make it.

J. H. GREENE, M. D.

DUBUQUE, Iowa.

Grindelia Robusta in Hay Fever.

I had an attack of Hay Fever on the 8th of October, and in a few days had tried all the remedies that I could find recommended, but all to no purpose. It then struck me to to try the Grindelia, and I sent to the Drug Store for one ounce. The first dose gave me ease and in 2 hours I took the second dose. Feeling no symptoms of the disease I concluded that I was cured, and so it proved for I had no return of the symptoms. I have treated four other cases successfully with it. Grindelia Robusta, in my opinion, is an efficient remedy for Hay Fever and Asthma.

J. M. HARALSON, M. D.

BRIGHTON, Mo.

Cascara Cordial.

I received a sample of this elegant preparation some time since with the request that I subject it to a trial.

A few evenings afterward a gentleman consulted me for chronic and persistent constipation. He had tried various remedies and combinations without satisfactory results. I handed him the sample of Cascara Cordial left with me, with, I confess, very little faith in the value of the mild and pleasant mixture.

Two weeks after, the patient called and assured me that he had followed my instructions for a few days,—a teaspoonful before each meal and at bedtime—and had secured copious defecations without the griping and flatulency attendant on the use of the laxative or cathartic pills to which he had been accus tomed; that he has had full and easy evacuation since stopping the medicine, and has had more relief from the little phial than he ever secured from the abundance of medicine that had cost him many dollars.

I have tried the Cordial on myself without apparent effect, though there was no particular indication for its use in my case.

J. HARVEY LYON, M. D.

MASON, Mich.

Crude Petroleum.

Mrs, K., suffering form chronic bronchitis with slight solidification of the lung consulted me for treatment. She was also very much emaciated. I placed her on the following:

℞ Semi-solid Crude Petroleum.
Macrotin.
Quinine, ℥ gr. j.

Mix. Put up in No. 1 gelatine capsule.

A capsule thus prepared was given three times a day, and the result was most satisfactory, the cough soon improving and finally disappearing. The general health also improved very satisfactorily. The capsule completely obviates the disagreeable taste and smell of the combination.

W. R. KING, M. D.

PHILADELPHIA, Ind.

Rhus Aromatica.

I have just treated a case of chronic gonorrhœal discharge in the male which I report because of the novelty and success of the treatment. The patient had possed under the case of a number of physicians and had been submitted to the routine measures, in spite of all of which the discharge persisted. There being no evidence of stricture I prepared the following with a sample of Rhus Aromatica which had been left with me:

℞ Ext. Rhus Aromaticæ fluidi, ʒss.
Aquæ puræ, ʒi.
Glycerinæ, ʒss.

Mix. Sig. For injection three times a day after urinating.

The improvement was immediate and continued until complete recovery.

J. C. SPIEGEL, M. D.

MOUNT MORRIS, N. Y.

Jamaica Dogwood.

Last week there came under under my care an inveterate case of neuralgia, which had been treated by many, very many 'physicians, to no purpose. I found the lady in the commencement of one of her periodic seizures, and the assertion of both her husband and herself that she could not be relieved short of several days discouraged me from attempting anything by way of curative treatment during the paroxysm. I, however, put her on Jamaica Dogwood, and agreeably surprised both the patient and myself, by securing perfect relief from the pain in twenty minutes. She fell asleep soon after and had a good night's rest. The continued use of the remedy has kept her easy since the first, a something which never before happened in her case, the pain always continuing at its height during the paroxysm.

I purpose trying Nitro-glycerine in this case between the paroxysms, with a view to breaking them up, and will report results.

E. H. HARRIS, M. D.

GRINNELL, Iowa.

Rhamnus Purshiana Affected by Light (?)

My experience with Cascara Sagrada may be unique. My first trial of the drug was most satisfactory. I found that while the first of any bottle of the fluid extract procured acted nicely it soon lost its characteristic action. Some six months ago it occurred to me that possibly the change in the activity of the preparation was due to the effects of light. Since then I have taken the precaution either to enclose the bottle in a black wrapper or to keep it in a dark place, and have had no reason to find fault.

J. RICHARDSON, M. D.

WANAKA, Indiana.

The Therapeutic Gazette

WM. BRODIE, M. D.
CARL JUNGK, Ph. D. } Editors.

DETROIT, MICH., NOV. 15, 1880.

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Our Exchanges (Continued.)

ANNALS of the Anatomical and Surgical Society, of Brooklyn, N. Y. Edited by Charles Jewett, M. D., with Drs. Bunker, Fowler, Pilcher and Rockwelll as Associates. Messrs. G. P. Putnam's Sons, Publishers. This journal is now nearing the close of its second volume. It is purely such a journal as its name indicates; being devoted exclusively to anatomy and surgery, it encroaches upon the field of no other journal and steps on nobody's toes. Articles on Anatomy are not usually very light or entertaining literature, and never popular with the "rank and file," but the surgical papers of the "Annals," and its editorial department make up for dryness elsewhere. The editorials are especially juicy and are equal to the counterbalancing of much more dryness than the journal ever contains. For paper and letter press, the "Annals" is far advanced even in the first rank, in fact is the only formidable rival of the THERAPEUTIC GAZETTE in these regards.

Alienist and Neurologist, a quarterly journal, edited by C. H. Hughes, M. D., of St. Louis, Mo. This journal has been accused of being the especial organ of the Lunatic Asylum Superintendents of this country, which in our mind is not a very serious accusation, even though it were well based. These gentlemen have been too exclusive on their methods, and have not given the general profession the benefit of their experinene to the extent that they should have. Now that they have an organ, and a good sized one, edited, too, by a real live editor, they may perhaps come out of their shells more frequently and numerously.

Arkansas Medical Monthly. Dr. Jonathan J. Jones, editor, Little Rock, Arkansas. This is a new journal, and its editor with the alliterative name has a mission, which mission consists in stirring up certain colleges in Arkansaw. There has been considerable music down there since the "Monthly" started up, and the end does not appear as yet. Dr. Jones, moreover, seems to have the capacity of touching notes which give forth much noise. We don't exactly understand the ins and outs of the row, but on general principles we pat brother Jones on the back and bid him sail in.

American Observer. Edited and published by Dr. E. A. Lodge, Detroit, Michigan. This journal stands high with those whose special education, and mental peculiarities fit them to appreciate it. We can only speak of its mechanical execution, and that is well up to the average.

Boston Medical and Surgical Journal. A weekly journal edited by person or persons, who persists, or persist, in keeping himself or themselves *incog*. This is the only objection we have to this journal, and it is a serious one. When you remove all personality from a journal you do it at the expense of piquancy. One always likes to know who it is that is speaking and the interest of a remark is closely associated with the one who makes it. The Boston Medical and Surgical Journal is emmently first class. It is, moreover, with but one exception the oldest medical journal on this continent. Its ability is chiefly displayed in its admirable resumés; it makes no special effort in its distinctively editorial column.

Buffalo Medical and Surgical Journal. Edited by the following quintette: Drs. Lothrop, Van Peyma, Davidson, Howe and Mynter. This is one of the older of our medical journals. It was always perfectly "straight," but until it passed under its present management was suspected of a deficiency of "snap." The new blood, or rather the complete substitution of a new strain, in its editorial corps during the past year has had a very salutary effect. "In a multitude of counsel there is wisdom," and "Too many cooks spoil the broth" are proverbs hoary with age. The latter is the one of the most general application as regards medical journalism, but staff of the Buffalo Journal supplies us with a notable exception.

Braithwaite's Retrospect. For us to say aught of medicine with this journal before us, is like talking war in the presence of Cæsar. Semi-annual medical journals are generally to be condemned, but always make an exception of this old friend. It has won for itself a position which is not fictitious, and a reputation which will abide.

Bistoury. Edited by Thad. S. Up de Graff, M. D., Elmira, N. Y. This little quarterly illustrates the possibility of the publication of a journal at once valuable to the laity and not entirely insipid to the profession. It is a somewhat difficult matter to conduct such a journal and Dr. Graff, or de Graff, or Up de Graff (we don't know exactly where his name begins) deserves credit for the success of his effort. The Bistoury used to keep us posted in regard to the progress of a monument which a number of his lineal descendants in Elmira, were said to be erecting to the memory of a gentleman by the name of Adam (just Adam, no surname). Latterly we have heard nothing of the matter. Has work been discontinued on the stately pile? Waiting for an appropriation, or what?

British Medical Journal. Edited, it is said, by a Mr. Ernest Hart, although the most diligent scrutiny of the paper reveals no such name. It seems to be the style in England to conceal the man who furnishes the wind for the organ (we intend no disrespectful reference), and one or two

(only one or two, we are glad to say) of our American journals are affecting it. We don't like it. Notwithstanding this style the British Medical Journal is rated A 1 from a literary point of view, and its late report to the British Medical Association, whose organ and property it is, shows it to stand equally high financially; it enjoys a very liberal advertising partronage, and holds its space very stiff at gilt edge rates. No medical journal published, no matter what the tongue, displays more ability in its columns, whether as regards contributions or editorial matter.

Canada Lancet, edited by Dr. John Fulton, Toronto, Ontario. This journal patterns after its illustrious London namesake, that is as far as its general appearance and make-up are concerned, and if it occupied the same relation to the English journal in point of importance that Canada does to the mother country, that fact alone would be no faint praise. But it does better than that. The Lancet is not the fruit of the labor of the scissors, supplemented by the paste pot, a suspicion which attaches too strongly to some of our journals; our brother Fulton throws a good deal of himself into his journal and the journal improves in consequence.

Canada Medical Record. Edited by Francis W. Campbell, M. A., M. D., L. R. C. P., Lond., with three assistants. Each number of this established journal presents a very creditable table of contents, at least it did in the last number on our file, which is that of several months ago. It may be defunct for aught we know; if so, we drop a tear on its grave.

Canadian Journal of Medical Science, edited by U. Ogden, M. D., and R. Zimmerman, M. D., Toronto, Ontario. This journal displays very excellent taste in making its selections, but we should like to see a little more of that editorial work which it has at times given illustrations of its ability to furnish. There is one thing also which cannot fail to strike any one who looks through our Canadian contemporaries, the one before us among the rest, and that is the dearth of original contributions. How is it, our Canadian friends, that with so high a standard of requirement, both for entrance to your medical schools and graduation therefrom, that your journals contain so many clippings, to the exclusion of original articles, reports of cases, etc., from your own number? The appearance of your journals is somewhat anomalous.

Rectal Alimentation.

THE strictures of Dr. Stowell, in our present number, on a paper which recently appeared from the pen of Dr. J. H. Egan, challenge our attention. We do not feel called upon to defend the views expressed by contributors, for custom has absolved a medical, or any other journal, from all responsibility for the opinions of contributors. There are, furthermore, expressions in the article which Dr. Stowell criticises, which are not very defensible. There is one, however, the correctness of which is called in question, without what we should regard as sufficient reason, viz., that which claims the possibility of an enema passing from the large intestine into the small, *i.e.*, the possibility of a fluid moving contrary to the law of gravitation and through the ileo-cæcal valve. The latter possibility is that which is particularly called in question, and Dr. Stowell supports his objection with quotations from eminent physiologists. It is not for us to call in question the authorities cited, and inasmuch as the experimental physiologist of the University of Michigan contents himself with mere citations from these authorities, giving no facts for which he can himself vouch, any argument with him is in a great measure forestalled.

It is not necessary, in our opinion, to combat, (even were that possible), the statements of Flint, Foster, or others, regarding the impermeability of the ileo-cæcal valve to fluids from below the opening. We would respectfully submit that the experiments through which such a conclusion is reached, were mainly, if not entirely, conducted on the dead body, and are thus not reliable criteria of the action of this valve under the pressure of fluids from below, in the living subject. The purely mechanical action of any apparatus of the body is quite a different thing from the action of such apparatus influenced by the element of vitality. Any arguments, therefore, in support of vital action based on the conduct of the dead organ, is as fallacious as any conclusions regarding the therapeutic action of a drug which might be drawn from the action of the drug in the test tube.

There are, to our mind, convincing arguments that the ileo-cæcal valve does not interpose an insuperable barrier to the passage of fluid from the large to the small intestine in the living subject. These arguments are drawn from the experience of those whose observations are not confined to the physiological laboratory. In the first place it requires no argument to establish the possibility of reversed peristaltic action. If argument were necessary to support this proposition we might instance the "gagging" of the faucial muscles from their irritation by a foreign body, as tickling them with a feather, etc. The vomiting of bile, also, and of chyle might be instanced. In the treatment of stricture of the rectum by dilatation it is a very necessary precaution to secure the bougie to prevent its being drawn upwards in opposition to the natural law which causes the expulsion of the contents of the rectum.

If, therefore, it is possible for the normal peristaltic action to be reversed under certain circumstances, is it unreasonable to suppose that the normal action of the ileo-cæcal valve may be reversed by the irritation of a foreign substance, furnished in the case of rectal alimentation by the enema? How is it, indeed, possible, if this valve do not relax, for the stercoraceous vomiting to occur in strangulated hernia? Even Dr. Stowell, who does not believe in the possibility of the passage of the contents of the large intestines into the small, will scarcely deny this clinical fact.

Dr. Henry F. Campbell* reports his observations on a kid which he fed per rectum for eighteen days with colored aliment. On opening the animal's abdomen at the end of that time, "and previous to slitting open the intestinal wall, dark red discolorations were seen occupying many inches of the tube, though not continuous throughout. These were found in all parts of the tract from the anus to the maws. On slitting the tube, these parts of

*Transactions of the Gynæcological Society for 1879.

the intestine were found to contain the coloring matter of the injected aliment. The fluid was carefully examined though no test was applied. In none of the physical appearances did there seem to be any reason for doubt. In addition to the colored fluid, large numbers of the fæcal scybalæ or balls were scattered throughout the whole length of the tube. The larger proportion of them consisted of matter which was colored by the stain of the cochineal and madder."

The indisputable fact that rectal alimentation is possible, and that the system may be sustained for an indefinite time by enemata, the composition of which precludes the possibility of their being absorbed from the large intestine, would seem to argue that fluids pass through the ileo-cæcal valve from below upwards. In denying the possibility of their thus passing it is neceesary to substitute a hypothesis much more improbable than that which supposes the relaxation of the valve. Dr. Stowell by consulting the authorities which he relies on to sustain his opposition to the possibility of fluids passing from the large to the small intestine, will find that the digestion, peptonification and chylification necessary to fit certain sucstances given with benefit by the rectum, for absorption, are not possible in the large intestine, consistently with the normal anatomical structure of that portion of the alimentary tract. Dr. Flint—recognizing this fact—advances the hypothesis that certain glands in the large intestine take on "vicarious activity when the glands of the stomach and small intestine are not excited by the presence of ingesta." But he is not willing to rely solely on this ingenious hypothesis and ventures another: "Food introduced into the rectum excites secretion by the gastric and intestinal glands, and, in the absence of ingesta in the stomach and small intestine, the fluids secreted by these glands pass into the large intestine in sufficient quantity to effect digestion within the latter."

It seems to us that the hypothesis which most nearly conforms to facts is the one entitled to the greatest credence. We have seen that it is possible, as in the case of strangulated hernia, for the contents of the lower bowel to pass upwards through the whole length of the alimentary canal; it, therefore, taxes our credulity much less to believe that food introduced into the lower bowel is in like manner carried upwards and digested, than to believe that it is digested, and otherwise prepared for absorption, through some occult, vicarious function on the part of the large intestine. When various hypotheses are submitted to account for a fact the majority of men will accept the least improbable, and that, too, in spite of preconceived ideas based on statements which they themselves have never verified. We believe that the theory of "intestinal inhaustion" advanced by Dr. Campbell, of Georgia, and referred to by us in our May number has received many supporters and is destined to receive still more, as practical physicians are induced to give it their consideration. It has facts to support it—facts corroborated by the actual observation of the practitioner, and such facts will always draw a larger support than will be accorded the theorizing of the closet, or of the physiological laboratory either, for that matter. The latter are valuable merely as guide-posts, but they do not always point with unerring finger, and should not be followed when they point in a direction contrary to that indicated by observations at the bedside.

Law in Therapeutics.

THE tendency of mind as it is of matter is towards rest. Effort is not pleasant, and men labor from necessity rather than choice; this statement is perhaps less true of mental than of physical effort, but even mental effort when not compulsory requires some other incentive than pure love of exercise to call it forth. There is system in nature, and pæans have been chanted on its beauties, and man admires system in its efforts, both because of its beauties and because it facilitates those efforts. This being the cause what is more natural than that the physician should seek to reduce to system the chaos which confronts him as he looks out not only upon the list of human ills but also upon the agents presented to him for the relief of those ills. His success in classifying both ills and remedies has been by no means inconsiderable, and through this success he has added very much to the effectiveness of his calling. He has arranged diseases into those affecting different organs and different functions, and into classes indicating the nature of the disturbance in each, whether inflammatory or non-inflammatory, acute, sub-acute or chronic, etc. In his classification of remedies he has arranged them under the various heads of astringents, irritants, stimulants, tonics, alteratives, etc. Thus far all is well, but there is something lacking, and that something is a law expressive of the relation which obtains between remedies and diseases. This has been the want of the ages and is still pressing. The efforts to supply it have been successful in so far only as they have demonstrated the ingenuity of man. The most that can be said of any of the so-called laws of therapeutics which have been enunciated is that it is not wholly false, containing a modicum of truth. It is probably no reflection on human ingenuity or on medicine itself, that none of these laws have been found of universal application. The essential fault lies in the facts, and men have erred only in their futile attempts to conform unalterable facts to their theories. The reason why no universal law of therapeutics has been discovered, and probably never will be, lies in the probable fact that there is no such law. There are, as we now view the matter, innumerable obstacles in the way of such a law. Some of those are indicated by W. Wilberforce Smith, M. D., M. R. C. P., in an article in the July No. of the London Practititioner. Law is possible in physics, and in physiology, for there belong to the members of groups certain common characteristics. For instance in physics although there are many kinds of gases, all gases are expanded by heat; many kinds of fluids, but the law that all seek their level applies to all; and many kinds of falling bodies but the velocity of all increases in the ratio of the distance traversed. In physiology although the fact that the distinctions are not so marked, makes the laws more complex, the laws, nevertheless, exist. It is, for instance, a law that

reflex movements are excited more slowly through the sympathetic than through the cerebro-spinal system, and that they continue for a longer time after the removal of the exciting causes. We have groups of organs and tissues which these nerves supply and the law embraces them all. "A law cannot apply to objects which admit of no grouping," and diseases in general admit of no true grouping; our classifications are at best mechanical and arbitrary. Disease itself, as we have indicated elsewhere, is indefinable, or at least the most that can be said of it is that it is some deviation from the standard of health. What that deviation is or in what the standard is we do not know. "The results," says Dr. Smith, "of incessant pathological and clinical industry throughout civilization, tend to separate diseases and to group them into subdivisions, but afford no indication that there is anything distinctive that applies to diseases in general." Each of the disturbances called diseases is a law unto itself, and bears no such similarity to any other disease as would permit the two being classed together for therapeutic purposes. An inflammation calls for a different line of treatment from a neuralgia, and the treatment of a fever is essentially different from that of either, and the line of treatment indicated in either of these would scarcely answer for the removal of a biliary calculus or the mitigation of the symptoms of valvular diseases of the heart.

"To maintain the existence of a universal law of therapeutics," continues Dr. Smith, "appears nearly as unreasonable as if a watchmaker were to advocate a single principle of dealing with the derangements of a watch. The watch may be suffering from congenital imperfections, or on the other hand from senile degeneration, resulting in organic defects; it may be deranged by the presence of foreign bodies, such as dust, or by genera injuries, such as a concussion. Paralysis from local injury, such as a fractured spring, must be distinguished from "functional" paralysis, the result of not being wound up. Sometimes it is a question of "humoral pathology" and oil is required. Sometimes there is derangement connected with undue "oxidation" from climatic vicissitudes.

Now a watchmaker fond of generalisations might possibly regard all watch diseases from a comprehensive point of view. He would imitate the medical writers who theorize about "disease." Naturally he would seek a common "law of cure," or having already advertised the "law of cure," he might not improbably theorize about "disease" in watches, to explain its *modus operandi*.

Had Hahnemann contemplated the facts of modern morbid anatomy and pathology, it is doubtful whether he would have written such a sentence as this: "To effect a mild, rapid, certain, and permanent cure, choose *in every case of disease*, a medicine which can produce an affection similar to that sought to be cured." Practitioners seem unconsciously clinging to mediæval traditions when they talk of the possibility of a natural common "law of cure." So long as an entity, "disease," is contemplated, the idea is tenable enough. But the bogey belongs to polytheism. Its ancient adherents associated the medical practitioner with magicians, astrologers, and wizards. His duty was by the combined use of drugs, rites, and indications, to charm, coax, or frighten away the mysterious evil thing that had taken its abode in the unfortunate patient. The "medicine man" of savages has similar duties. And the kind of phraseology commonly dealt in by the best exponents of a supposed comprehensive law of therapeutics is significant. It indicates how impossible it is to maintain their doctrine except by theorizing about the imaginary entity—"disease." Such language, and the ideas associated therewith, tend toward the arrest and retrogression of medical knowledge, just as the superstition of the Middle Ages brought all science to a standstill." * * * It is wholesome to recognize that there is wanting the first essential condition of a general "law of cure," and that it is in the nature of the subject that it should be so. If there is a group of facts which appear to accord with the crude formula *similia similibus*, it is very desirable that their true relationship and limits should be defined. The task may be difficult but it is not insurmountable. It is time to repent of the rashness which deduced from such facts a general "law of therapeutics."

Another Opponent of New Remedies.

OUR attention was arrested while reading a very interesting paper by Dr. A. R. Smart, of Hudson, Mich., in the Toledo Medical and Surgical Journal, by certain remarks on the general subject of new remedies. The paper was entitled "A Plea for Conservatism in Medicine," and took strong ground against the new drugs which are introduced to the medical profession, either by physicians themselves, or at the instance of physicians. This is, of course, one of the questions upon which differences of opinion are inevitable, and one upon which we, at least, are not only willing but anxious to have discussion. It is a question very intimately associated with the progress of rational medicine, and the fact that the great majority of the new remedies introduced of late years are of American origin, vests the question with peculiar interest to the physicians of this country.

Our position is unequivocally on the side of "proving all things and holding fast that which is good," and this position, we maintain, is the most inimical to the introduction of worthless articles, the most rational and free from illiberality. Any other position is opposed to progress. Of course there must be a line drawn somewhere in the testing of new drugs, and to submit every thing which might be presented regardless of its source and regardless of previous chemical and physiological tests, or tests in the hands of unscientific though acute observers, would be inconsistent, at once with the best interests of the patient and with true advance in therapeutics. Such trials are now, however, seldom, and indeed never, asked for a new drug, by those introducing them. With no exception, to our knowledge, have the new remedies introduced within the past three or four years, been recommended except on the basis of previous trials, the results of which have indicated very clearly, in all cases, the nature of the drug,

and in the majority of instances have actually established its dosage.

We cannot but think that much of the opposition to recent introductions to the materia medica is based on either no knowledge at all, or a very imperfect knowledge, of the properties of the drugs condemned. Indeed it is the boast of the opponents of new drugs that they have never tried them—relying on the standard officinal preparations, and repudiating all "new-fangled" remedies. Dr. Smart is, we must believe, one of the opponents of this class, for certainly he makes statements regarding certain remedies which are very inconsistent with a proper knowledge of his subject. "Kava Kava," he says, "proves to be so close a congener of cubebs that it is a query which has superior powers." This will be news to those who are most familiar with the new agent. And again regarding cascara sagrada "instead of proving a specific for constipation it is found to be merely a mild pleasant laxative, not certain in its action and producing its effects so long as used." It is news to us that "specific" properties are claimed for cascara sagrada: but that this drug exerts a special tonic influence over the muscular fibre of the intestines, increasing the tonicity of the peristaltic action of the bowel is, we think, as thoroughly substantiated by experience in its use, as the properties of any other drugs have been established by a like crucial test. "Again: "Chrysophanic acid upon a closer acquaintance, is practically our old friend, pyrogallie acid!"

One other remark of Dr. Smart's demands notice: "These articles come to us often as specifics for certain diseases, and usually upon the recommendation of men, as obscure as the drug in question." Such an assertion by an intelligent country practitioner is very much out of place. Dr. Smart himself might furnish an apt illustration of its injustice. He is an intelligent practitioner, educated up to the requirements of his profession, and withal a gentleman capable of tracing the connection between cause and effect in the administration of drugs; but how extensively is he known outside of his immediate neighborhood? Is he to all intents and purposes any less "obscure" than the gentlemen whose names are connected with the introduction of new drugs, or who have since their introduction testified to their value? We trow not. If the value of a drug is to be predicated solely on the celebrity of its vouchers we opine that there would be few advances in rational therapeutics. Is it not a fact that that the great volume of valuable work is accomplished by "obscurities?" The gentleman who devotes himself assiduously to his calling, is on hand, in season and out of season, to obey the summons to the bedside of the sick, though it may be miles away and through almost impassable roads and in all sorts of weather, is not likely to become celebrated in the sense which Dr. Smart implies; and yet he knows the effect of a drug when he sees it.

It is extremely fallacious to seek to establish such a criterion of the value of a drug.

Dr. E. R. Squibb and Elixirs.

WE copy the following from the Michigan Medical News of the 25th ult.:

"Dr. E. R. Squibb was a member of the committee for revision of the U. S. P., but has resigned. The immediate cause of his resignation was the decision of the committee at its last meeting at Saratoga, to give elixirs a place in the new codex. The motion to thus officially recognize elixirs was carried by a vote of nine to eight. There are many who will think all the more of Dr. Squibb for this pointed disapproval of the action of the committee."

We emphatically concur in this sentiment. We deem it unwise and inexpedient that the authoritative body of this country should, in this manner, countenance one of the greatest abuses of modern pharmacy. While we not only do not object to but strongly commend every effort made to rid drugs of the features which render them objectionable to the palate, we think it possible to sacrifice the inherent value of the drug to this effort. We are strongly of the opinion that such drugs as are usually prepared in the form of an elixir are materially impaired in their medicinal properties by the combination into which they are made to enter to form the elixir. We might instance the elixirs of quinine, and its combinations, and the various elixirs of the other cinchona alkaloids in support of this statement. Quinine is prepared in the form of an elixir to disguise its objectionable bitter taste. The elixirs of this salt are not proposed to be given to secure its antiperiodic but simply its tonic and stomachic effects. Now as a physiological fact quinine owes the latter properties to its bitterness. In so far, therefore, as a preparation of quinine is successful as an elixir, is it a failure as as a medicine.

Elixirs are objectionable, also, in that the ingredients employed to disguise the taste of the principal drug in many of them, are themselves not devoid of medicinal properties, and thus must modify to a greater or less degree the action of the principle. The objection, therefore, which the scientific physician urges against stereotyped prescriptions may be urged with reason against elixirs.

The manufacture of elixirs, moreover, affords a too plausible opportunity to ignorant or designing manufacturers for imposition upon the medical profession. That elixirs, as a class, are preparations which are not only acceptable to the patient, but may also possess other features which recommend them, we do not deny. Some of them are frequently, also, of value when a placebo is indicated, and in certain cases as a weapon against homœopathy. We believe, however, that as effective medicines they are an unquestionable failure. The minute proportion of the active principles, in most of the palatable elixirs and the consequent large proportion of alcohol in each dose, render the administration of these preparations in many cases not only inadvisable in a therapeutical sense, but objectionable, also, in a moral sense. Many elixirs are little more than liquors in construction and might be substituted for the various beverages of this class, as well as for the bitters dispensed over the bar of the dram seller, without remonstrance from the toper. The administration of such large doses of alcohol, where there is no indication for it, and where the physician (not aware in all cases of the construction of the preparation) has only the medicinal ingredients in view, is not only a dangerous but an unscientific practice.

From another point of view the official sanction of elixirs as a class is objectionable. These preparations were originally introduced in variety by manu-

facturers of pharmaceutical preparations simply as a source of pecuniary profit. With this object in view it would seem that the rationale of their formula, compatibility of their ingredients, and their therapeutic effects were subordinate considerations. Let us examine, for instance, certain familiar examples: Consulting the price list of a well-known manufacturer, we find the following formula for

Elixir, Pepsin, Bismuth and Strychnia. — "Each fluid drachm contains five grains saccharated pepsin, one grain ammonio-citrate bismuth, one-sixtieth grain strychnia, in combination with the usual aromatic principles and elixir basis,"—the latter always containing alcohol. Now it is a fact, than which none is better established, that pepsine is only active as a digestive agent in the presence of acid association; the ammonio-citrate bismuth, on the contrary, is only soluble in alkaline solutions. Further the action of alcohol upon pepsine is to destroy its digestive power and thus to render it entirely inert. Here then is a preparation which, if manufactured according to the formula, would either precipitate the bismuth from the solution, or, if the bismuth were retained, destroy the active principle of the pepsine. Again, if by any chemical legerdemain,—peculiar to the subtle manufacturer of this preparation—both ingredients, pepsine and bismuth, were kept in solution, the pepsine would still be rendered inert by the presence of the alcohol, which enters into the basis of the preparation.

Elixir of Phosphates Iron, Quinia and Strychnia. —"Each fluid drachm of this preparation contains two grains phosphate of iron, one grain of quinia, one-sixtieth grain strychnia, in combination with the elixir basis."

Experiment has amply shown that it is impossible to combine these quantities of quinia and strychnia in such concentrated solution, and at the same time retain the usual elegance and consistence of this elixir, without rendering the preparation so bitter as to nullify the intent for which it was manufactured. The taste of quinia and strychnia may be disguised in concentrated solution when held in suspension by such *thick or almost viscid vehicles* as the elixirs of taraxacum or licorice compound, but the elixir which we are now considering is offered upon the market in the form of a thin alcoholic preparation, presenting not only elegance of appearance, but elegance of taste. The usual argument of the manufacturers of these preparations is the specious one that those who state that it is impossible to make an elixir possessing the proportion of quinia and strychnia above stated, without producing inelegant mixtures, are not sufficiently well versed in pharmacy. That there is an evidence here of deception, either with regard to the method of manufacture or the proportion of the ingredients, is quite manifest, and some of our eminent chemists would render a service to the profession by undertaking the analysis of these elegant preparations and thus demonstrate a dishonesty which is habitually practiced by unscrupulous houses.

Beef, Iron and Wine. — "This contains in a tablespooful, the esssence of 1 oz. of beef, 2 grs. citrate iron, and sherry wine as a vehicle." It is further stated that "a portion of the beef is in the first place partially roasted, as experience has shown that it is thus better borne by the stomach and can be administered for a longer period." Whether the latter procedure is ever taken would be an interesting point to be decided, but we would state in this connection that it is a general supposition that manufacturers of Beef, Iron and Wine, are accustomed to use the simple commercial extract of beef, a preparation which is now known to be destitute of the nutritious properties of beef, the albumen having been wholly destroyed in the process of manufacture, leaving nothing but the phosphates and other inorganic salts. That a preparation of extract of beef in combination with iron and wine is of any greater therapeutic value than is a combination of iron and wine alone, is not probable in the light of our knowledge of physiology. The fact too that this preparation is sold at a less price per gallon than a satisfactory article of sherry wine can be purchased for, is evidence in itself that deception in regard to either the quantity or the quality of the wine itself has been practiced. We would not have these remarks understood as being aimed at manufacturing pharmacists in general, for they are not all guilty of this deception and sophistication. They are, however, based on facts and demonstrate the abuses possible in this class of goods, abuses, moreover, to which preparations of this class offer a peculiar temptation. Their recognition by the pharmacopœia would by no means obviate the tendency to this abuse, for the complexity of the formula, and the very fact that the menstrua and flavoring are particularly adapted to the covering up of the deceptions we have indicated, offers a premium to the devious methods. If the profession were fully informed as to the crookedness possible, and actually practiced, in the making of elixirs they would scrupulously abstain from prescribing them and would thus make the dishonesty unprofitable.

The action of this committee is, however, not so much to be wondered at when its make-up is taken into consideration. We called attention in our June number to its comparative preponderance of pharmaceutists over medical practitioners. The sanctioning of elixirs is a very natural action of a committee composed so largely of gentlemen whose only interest in drugs lies in the preparation of them, an interest connected solely with their physical and chemical properties and entirely independent of their physiological properties or therapeutical effects. Dr. Squibb, in addition to being one of the most scientific pharmacists of this country is likewise an educated physician. He, therefore, was able to realize as those purely pharmacists on the committee were not, the impropriety of sanctioning the preparation of elixirs; and failing to convince these gentlemen, whose lack of medical education was a barrier to conviction, of the error of their action, he very consistently washed his hands of all responsibility in the matter. Dr. Squibb's action will commend itself to the medical profession of this country and will remind them of their mistake in relegating the important matter of the revision of the U. S. P. so largely to those ignorant of the therapeutics or physiological action of drugs.

Book Reviews and Notices.

A Treatise on the Practice of Medicine for the use of Students and Practitioners. By Roberts Bartholow, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia; formerly Professor of Theory and Practice of Medicine and of Clinical Medicine in the Medical College of Ohio, etc., etc. New York: D. Appleton & Co. Detroit: Thorndike Nourse.

This is a companion volume to the author's work on "Materia Medica and Therapeutics," and is so arranged as not to duplicate more than is absolutely necessary.

Following the plan adopted in his treatise on "Materia Medica" in which was omitted matters of rather extraneous interest, so has he in the volume before us omitted those topics of general pathology and etiology with which works on practice usually open, and which are generally hastily passed over or not read at all by the busy practitioner in his haste for practical matters, but he has incorporated them in their proper relation with individual diseases. We like the terse and concise style in which the book is written, and although we cannot agree with the author in many things, yet we congratulate him in producing a work on theory and practice of medicine that will meet the best interests of the student of medicine. Were we to speak for the profession in general we would say "cui bono?" With Reynolds' System of Medicine, Ziemssen, Watson, Bristowe, Roberts and others, there seems no necessity for another

work on practice of medicine, yet every writer adds something new and important, and we feel bound to accept the old saying, "In a multitude of counsel there is wisdom." The book is well written, and the publisher has sent it to the profession in an acceptable style, and as we believe in the doctrine of supporting home productions, we cordially commend Bartholow's Practice of Medicine to the medical student particularly, and the profession generally.

Diseases of the Throat and Nose including the Pharynx, Larynx, Trachea, Œsophagus, Nasal Cavities and Neck, in two volumes. By Morel McKenzie, M. D., London, Senior Physician to the Hospital for Diseases of the throat and Chest, Lecturer on Diseases of the Throat at the London Hospital Medical College, and Corresponding Member of the Imperial Royal Society of Physicians of Vienna. Volume I. Diseases of the Pharynx, Larynx and Trachea. Pages, 570, Illustrations, 112. Price, $4.00.
Philadelphia: Presley Blakiston. Detroit: Thorndike Nourse.

Dr. Morel McKenzie has been so long and so favorably known to the profession of this country, that the mere mention of his name in connection with a treatise on diseases of the throat is a sufficient guarantee that the work is a good one.

We have anxiously awaited the advent of Dr. McKenzie's new work, the first volume of which is now before us, and it is but a slight tribute to its excellence to say that it has more than met our expectations. The first volume is devoted to the consideration of diseases of the Pharynx, Larynx and Trachea. In the first section of 207 pages are discussed the anatomy of the pharynx, its diseases and those of its adjacent structures. The second section of 272 pages is devoted to the anatomy of the larynx, the use of the laryngoscope and the diseases and growths peculiar to this portion of respiratory tract. In the third section are discussed the anatomy of the trachea, the disease to which it is liable, the indications for operative interference, and the necessary directions for operative procedures are given.

The distinguised author is prominent among those who consider croup and diphtheria as one and the same disease, differing only with regard to location. Dr. McKenzie says, "Inasmuch as a diphtheria generally commences in the pharynx, and when it affects other parts most frequently attacks them by extension, I have thought it right to treat the whole disease in one section. I am the more inclined to adopt this plan, as I entertain the view that croup is only a form of diphtheria in which the local expression is found in the larynx and trachea * * * *."

Dr. McKenzie's work is a very valuable contribution to the literature of subjects which are every day assuming greater importance. It is written in a clear, concise and systematic manner, and is at once lucid and pleasing. The first volume has a valuable addition in the way of a very full and extensive index, which makes the volume complete in itself. We most cordially commend it to profession, and do not hesitate to say that this latest contribution of Dr. McKenzie's should be in the library of every physican and surgeon in this country.

On the Bile, Jaundice and Bilious Diseases. By J. Wickham Legg, Fellow of the Royal College of Physicians of London; Assistant Physician to St. Bartholomew's Hospital and Lecturer on Pathological Anatomy in the Medical School.

La bile est un liquide dont l'étude intérese au plus hout point le physiologiste et le médicin. Les difficulties dont entouré son histoire physiologique font qu'elle est encore fort obscure.—*Claude Bernard.*
New York: D. Appleton & Co. Detroit: Thorndike Nourse.

This work is a devoted to that office of the liver which for two hundred years was the only one allowed by physiologists; that is the secretion of bile. The early chapters treat of the chemistry and physiology of this humor. The chemistry is now pretty well understood. The author, however, claims "that the physiology is still surrounded by a darkness almost Egyptian, and it may surprise many to find how little knowlege there is of a humor which has been studied for over two thousand years, and which already filled a great place in the physiology of the Timæus." This obscurity, he claims, is doubtless due to the place physiology holds among the sciences, and still more to the point at which the bile is discharged into the upper part of the intestines where it cannot conveniently be collected and measured as may readily be done by other secretions, such as the urine.

Several chapters are devoted to the phenomena caused by an obstruction to the discharge of bile into the intestine, and in those which follow an account has been given of certain species of jaundice, where an obstruction to the flow of bile cannot at once and without trouble be discovered after death.

In the last chapter he has specially considered the meaning of "bilious diseases;" and proposes that the word "bilious" should no longer be used as an adjective to diseases, but when used with the word headache, attack, or the like it always connotes a gastric catarrh.

The author has entered into his subject very fully and given all the knowledge collected as well as his own views. It must be considered a valuable aid to the physiologist, pathologist and practitioner of medicine, as well as all who are interested in the subject, and to them we cordially commend the work.

The Brain as an Organ of the Mind. By H. Charlton Bastian, M. A., M. D., F. R. S., Professor of Pathological Anatomy and of Clinical Medicine in University College, London, Physician to University College Hospital, and to the Paralyzed and Epileptic with 184 illustrations.
New York: D. Appleton & Co. Detroit: Thorndike Nourse.

This is a work which everybody that lays any claims to scientific culture should read. Professional men in particular will be interested, and even those who are engaged practically in the practice of their profession should possess it and read it. It is scientific and must necessarily be a valuable aid to the neurologist. It is clear, terse, and instructive, and at the same time interesting. Some fifty different kinds of brains are described, but the palm is given to that of the Scotchman.

Phrenology old and new is discussed, the mental capacity and powers of higher brutes, he weights of the brains of many great men, etc., etc. Our space does not permit us to mention a tithe of the subjects investigated, We must,

therefore, leave it to its readers. It is a library book and should be in every one, private and public. To make it thoroughly available the author has added a complete index, and the publishers have presented it in their usual good taste. We cordially commend it.

School and Industrial Hygiene. By D. F. Lincoln, M. D., Chairman Department of Health Social Science Association. Price, 50 cents. 1880.
Philadelphia: Presley Blakiston. Detroit: Thorndike Nourse.

This is No. 12 of Keen's American Health Primers, and would seem to complete the series. No one is better qualified to write on the subject of this notice than Dr. Lincoln. Every school board should have a copy, and every member read it. Every school architect, every teacher, and we may say every family should possess it, and not only possess but read and inwardly digest, for thereby the health and lives of the rising generation would be very much benefited. The whole series is valuable and has received our special commendation.

A Practical Treatise on Nasal Catarrh. By Beverly Robinson, A. M., M. D., Lecturer upon Medicine at the Bellevue Hospital Medical College, New York; Physican to St. Luke's and Charity Hospitals, etc., etc. Pages, 182; illustrations, 56.
New York: William Wood & Co.

This a valuable book upon a subject in which almost every one, particularly in our climate, is more or less interested. Few affections prevail to a greater extent than does nasal catarrh, in one form or another. Dr. Robinson's little work will prove a correct guide for those who wish to inform themselves regarding the pathology and treatment —both preventive and curative—of this annoying affection. His views on the hygienic management or prophylaxis of nasal catarrh are sound, and form a striking contrast with those set forth in a recent publication, in which amongst other ridiculous things we are told that baths need not be taken, in winter time, oftener than once in four to eight weeks. Dr. Robinson has arranged the prophylaxis of nasal catarrh under four heads, viz.: Care of the feet; cold bathing; friction and shampooing, and clothing and temperature. The careful perusal of this portion of the subject will well repay those not already familiar with these views. Many of the wood cuts are illustrations of the instruments required to examine and treat nasal affections. We heartily commend it to general practitioners of medicine, for whom, no doubt, it is intended.

A Treatise on Diseases of the Eye. By J. Scelberg Wells, F. R. C. S., Doctor of Medicine of the University of Edinburgh; Professor of Opthalmology in King's College, London; Ophthalmic Surgeon to King's College Hospital; and Surgeon to the Royal London Ophthalmic Hospital, Moorfields. Third American from the third English edition. with with copious additions by Charles Steadman Bull, A. M., M. D., Surgeon and Pathologist to the New York Eye and Ear Infirmary; Lecturer on Ophthalmology in the Bellevue Hospital Medical College. Illustrated with 254 engravings and six colored plates.
Philadelphia: Henry C. Lea's Son & Co.

For some years this standard work has been out of print, and the edition now before us has been looked for with more than ordinary interest. Few among the medical writers of Great Britain were so well and so favorably known to the profession of America as was Scelberg Wells; and it was with unfeigned feelings of regret that news of his demise was received on this side of the Atlantic. It was expected that the author himself would revise the work preparatory to the publication of another edition, but his failing health and his untimely death left the work of revision to other hands. To Dr. Charles S. Bull, of New York, the duty was assigned, and this duty he has performed in a very satisfactory manner. Although in most instances the additions to the text are not very extensive, yet from a pathological standpoint they are of very great importance, and the work is now fully up with the advanced state of the science.

For the past ten or a dozen years "Wells on the Eye" has been considered the leading textbook on this subject, and as a work of reference for the general practitioner we do not know of its equal. It is written in a clear and comprehensive style, is fully illustrated and contains in its 900 pages a vast amount af very important matter on a great variety of subjects.

Our limited space will not permit us to review this great work, and indeed it is already so well known to practitioners of medicine in this country that an extensive review is unnecessary. We heartily commend it, and do not hesitate to say that the present edition is the best book on diseases of the eye with which we are acquainted. To its illustrious author it will stand as a monument more lasting than one builded of stone.

A Manual of Minor Surgery and Bandaging. By Christopher Heath, F. R. C. S., Surgeon to University Hospital, and Holme Professor of Clinical Surgery in University College, London, and Honorary Member of King's College. Sixth edition revised and enlarged with 115 illustrations. Price, $2.00.
Philadelphia: Lindsay and Blakiston. 1880. Detroit: Thorndike Nourse.

The author makes no pretension of claim for for his book as a systematic work on surgery, but he claims for it some hints on the numerous accidents and emergencies that may benefit those occupying the position of House Surgeon in a Hospital, or a new beginner in surgical practice who has not had the advantage of a hospital education,

The book is full of choice information that cannot be found in general works on surgery, and hence we recommend it to the new beginner as containing information on details that cannot so concisely be found elsewhere. Such a book would have been of much service in our early surgical career.

On Slight Ailments, Their Nature and Treatment. By Lionel S. Beale, M. B., F. R. S., Fellow of the Royal College of Physicians; Professor of the Principles and Practice of Medicine in King's College, London, and Physician to King's College Hospital; lately Professor of Pathological Anatomy, and formerly Professor of Physiology and of General and Morbid Anatomy in King's College. Price, $1.50.
Philadelphia: Presley Blakiston. 1880. Detroit: Thorndike Nourse.

The object of this book is to convey to the student information upon the smaller complaints not generally treated upon in works of general practice. It is a clinical compendium—tells all about the tongue, the appetite, nausea, thirst, hunger, indigestion, constipation and its treatment, diarrhœa, vertigo, giddiness, blindness, sick-head-

ache, neuralgia, rheumatism, the feverish and inflammatory state, the acute changes in fever and inflammation, and the common forms of slight inflammation. It bears the same relation to works on theory and practice as Heath's Minor Surgery and Bandaging does to surgery. They are twin books and full of valuable information to the neophyte. We recommend it not only to the student and beginner, but also to the elder practitioner as a remembrancer of many facts that have been overlooked in a busy practice and would be well to be again called to his attention.

Woods' Library of Standard Medical Authors. Diseases of the Pharynx, Larynx, and Trachea. By Morell Mackenzie, M. D., London. Senior Physician to the Hospital for Diseases of the Throat and Chest; Lecturer on Diseases of the Throat at the London Hospital Medical College, and Co responding Member of the Imperial Royal Society of Physicians, of Vienna.
New York: William Wood & Co. 1880.

We have already expressed our opinion of this valuable work of Dr. Mackenzie, and to the subscribers of Wood's Library we consider it a valuable acquisition. It appears in two volumes. The second will be looked for with interest by all those interested in the diseases upon which the talented author writes.

The Physicians Visiting List for 1881. Thirteenth year of its publication.
Philadelphia: Lindsay & Blakiston, and can be had of all Booksellers and Druggists.

The edition for 1881 contains several new features over that of 1880 which are of value to the physician. There has been no change of prices for the different sizes. We have this list for many years and for convenience of arrangement, durability and compactness, it meets our entire approval. As such we commend it to the Profession.

Pamphlets Received.

International Medical Congress. Seventh session to be held in London, August, 1881. Patrons—Her Majesty, the Queen; His Royal Highness, the Prince of Wales; President of the Congress, Sir James Paget, Bart., D. C. L., S. L. D., F. R S., with a full corps of Vice-presidents. Dr. J. Risden Bennett, P. R. C. P., LL. D., F. R. S., Chairman of the General Executive Committee; William Bowman, Esq., F. R. S., Treasurer, and William MacCormac, Secretary-General, to whom all communications should be addressed.

Department of Agriculture, Special Report No. 26. Report on the Culture of Sumac in Sicily and its preparation for market in Europe and the United States. Prepared under the direction of Commissioner of Agriculture. By Wm. McMurtrie, Ph. D., Washington, Government Printing Office.

Note on the Alkaloids of Cinchona. A Paper read by Benjamin Lee, M D., Ph. D., F. A. A. M., (of Philadelphia) before the Medical Society of the State of Pennsylvania, at Altoona, (Pa.) May 21st, 1880.

A Contribution to the Knowledge of Fracture of the Rim of the Acetabulum based on the reports of twenty-seven cases and experiments on the Cadaver. By Nicholas Senn, M. D., of Milwaukee, Wis. Reprint from the Transactions of the State Medical Society, 1880.

Forms, Cases and Treatment of Tinnitus Aurium. By W. Douglas Huming, F. R. C. S. Ed., etc., Bou ne-Mouth. Late Assistant Surgeon Central London Throat and Ear Hospital; Author of "Papers on Aural Affections," etc. Reprinted for the au hor from the British Medical Journal of September 25, 1880. London, Eng.

Report of the Bureau of General Sanitary Science, Climatology and Hygiene, to the American Institute of Homœopathy. Session of 1880.

Annual Report of the Infirmary for Hæmorrhoids, Fistula and other diseases of the Rectum. Incorporated 1879. Dispensary Building, No. 304 East Broadway, New York. Open daily at 12:30 P. M.

The Western Farmer of America. By Augustus Mongredien, author of "Free Trade and English Commerce." "Cobden Club," "London, Paris, and New York."

The Republican Party; its Principles and its Practices. By Horace J. Sabus, Esq.

On the Management of Infantile Eczema. By L. Duncan Bulkley, A. M., M. D. Reprint from Transactions of the Medical Society of the State of New York for 1880.

On the Use of Sulphur and its Compounds in Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D. Reprint from Archives of Dermatology, July, 1880.

The Preventive Treatment of Hemicrania by Cannabis Indica. By James Stewart, M. D., Brucefield, Ontario, Read before the Canada Medical Association at Ottawa, September, 1880.

List of Books which will be found Valuable to Candidates for Examination in Sanitary Science by the Michigan State Board of Health. Reprint from the Michigan Medical News September 25, 1880. Address Henry B. Baker, M D., Secy., Lansing, Mich., for a copy.

The Rocky Mountain Medical Review. A monthly journal of scientific medicine and general science, edited by A. Wellington Adams, M. D., with a full corps of assistants.

This new journal is published at Colorado Springs, Colorado, by Tribe & Jefferey, and presents, typographically, as good an appearance, as though it came from an eastern press, and even better than many that do. Its contents speak well for Dr. Adams, its editor. Terms, $5.00 per annum. Single copy, 50 cents.

May success attend this new addition to the corps of journalism. Only sufficient subscribers is necessary for its permanent success. No. 2 received, please send No. 1. We enter it on our exchange list with pleasure.

Walshe's Physician's Handy Ledger. Published by Ralph Walsh, M. D., No. 326 C. Street, Washington, D. C. Mailed prepaid upon receipt of price, $3.00.

Walsh's Physician's Combined Call Book and Tablet. Fourth edition.

These two books naturally go together, although each can be used separate. Both are designed for the use of the physician, and are equally good for the city and country practitioner, indeed for the latter it is extremely convenient. The Handy Ledger has space for 300 names, and is so arranged that at the end of the month each patient's bill can be made out at sight.

The Call Book besides being a daily memorandum contains much valuable information, such as may be needed at the moment to refresh the memory. We have no hesitation in recommending them to the profession.

New Remedies.

THE STIGMATA OF MAIZE.—We copy from the London Practitioner's translation from the Progrès Medicale the following on corn-silk as a diuretic.

It is hardly a year since this remedy was first introduced into the ordinary routine of practice, and yet it may not be uninteresting to make an abstract of some of the papers which have been published in regard to it. Professor Castan, at

the Montpellier meeting, called attention to the stigmata of maize as a remedy which he had long known, and which he had found to be of great use in gravel and nephritic colic. In the latter disease there ensued after the administration of the drug a marked decrease in the painful symptoms, and he therefore supposed that the stigmata acted less as a diuretic than as a local anesthetic. Professor Denucé, of Bordeaux, obtained the most favorable results from its use in vesical catarrh, in which it appears to possess an elective action on the mucous membrane of the bladder. Dr. Pons, of Nérac, and Dr. Queirel, of Marseilles, had also frequently employed the stigmata of maize. M. Queirel observed that the pain was greatly alleviated in nephritic colic after the use of the remedy, but the urine was at the same time markedly increased in quantity. At the Therapeutic Society M. Constantin Paul stated that he was not convinced of the diuretic properies of the stigmata, although one of his colleagues had obtained some very striking results, the quantity of urine being in one case of dropsy increased from five to fifteen hundred grams after the ingestion of three spoonfuls of the syrup. Dr. Landrieux has arrived at the following conclusions, based on a considerable number of observations: 1. The various preparations of the stigmata of maize are of use in modifying the secretions of the urinary tracts. They may also be considered to possess a distinctly diuretic action. 2. Diuresis is rapidly produced, and the increase of urine is very marked after three or four days. 3. The diuretic effects are observed not only in diseases of the organs concerned in the urinary secretion, but also in the affections of the vascular system (diseases of the heart, blood-vessles, etc.) 4. The pulse is regular, the arterial tension is increased, while the venous pressure is diminished. 5. The remedy produces no disturbance of the nervous or digestive systems. The tolerance of the drug is complete and absolute, while in chronic cases its administration may be continued for three to six months without inconvenience. The different results which the use of the stigmata of maize has given at the hands of different observers appear to be due in a large measure to the fact that the strength of the extract varies according to the nature of the soil, to the climate, to the time, to the mode of picking, and to the manner of drying the stigmata. The formula for the preparafion of the syrup is not yet fixed, since the quantity of the active principle varies in different samples of the stigmata. The Pharmaceutical Union adopts formulæ which contain in one case six, and in another twelve grams of extract to the kilogram of syrup. The latter receipt is based on the assumption of a strength of 12 per cent. This quantity appears, however, to be too small, since the best samples of stigmata yield 25 to 30 per cent of extract, or on an average 27.5 per cent. The kilogram of syrup will therefore contain 27.5 grams with this strength (27.5 pro mille.) The daily dose of the syrup will be two to four spoonfuls, representing about one to two grams of the extract. In all cases the syrup should be employed in preference to an infusion of the stigmata of maize.—*Louisville Medical News.*

THE STIGMATA OF MAIZE.—A Paris correspondent writes, in the *Medical Press and Circular:*

The stigmata of maize seems to gain partisans in this country. Its diuretic properties are being much experimented upon, giving, as usual, contradictory results. This new remedy was brought under the notice of the profession about six months ago, by Dr. Bafaud, who, practicing in the Landes, observed that peasants freely used an infusion of the stigmata for attacks of gravel. But it appears that in Mexico the colonists used it in vesical catarrh from time immemorial. Recently the French medical press have received numerous communications upon the stigmata of maize, and many articles have been published, the last of which is from Dr. Landrieux, who cites two cases in proof of its diuretic properties—the first that of an individual attacked with ascites consequent on cirrhosis. Under the influence of the drug, given in the form of syrup, the quantity of the urine arose progressively and rapidly from five hundred grams to twelve hundred and fifteen hundred grams. On continuing this treatment for about three weeks all ascites disappeared. The other case was that of a woman, æt. 68, the subject of heart-disease. There was a considerable œdema of the lower extremities, enormous ascites, pulmonary congestion, renal congestion, causing a considerable diminution of the urinary excretion. The stigmata of maize was administered with the result of increasing the quantity of urine from two hundred to eight hundred grams in twenty-four hours. The œdema and ascites disappeared in a short time. Dr. Landrieux terminates his article with the following conclusions: 1. Not only are the different preparations of the stigmata of maize useful as a modifying agent of the urine, but these same preparations can be equally considered as an incontestable diuretic. 2. Diuresis is rapidly produced. 3. The pulse becomes regular under its influence, the arterial tension increases, while that of the veins diminishes. 4. Complete tolerance of the drug, and in chronic cases the treatment might be continued during a month or six weeks without the slightest inconvenience.

A discussion on the effects of the drug took place lately at Montpellier. M. Caston, Professor at the Faculty of Montpellier, believed it acted less as a diuretic than an *anesthétique local*, while M. Deuncé, of Bordeaux, thought it had an action *élective* on the mucous membrane of the bladder, but all agreed that it eased the pain in renal colic. At all events it is worth a trial, being cheap and easily procured. The dose would be eight grams for a pint infusion, to be taken *ad libitum*.

DUBOISIA AND ITS THERAPEUTIC EFFECTS.—A slight degree of poisoning by duboisia produces in man the following phenomena: Dryness of the mouth and throat, dilatation of the pupil, and accompanying it, dimness of vision; when in a more advanced stage it is accompanied by cephalalgia, vertigo, and drowsiness; which may even deepen into a comatose stupor. The pulse is considerably quickened, it may range from 60 to 180 (Ringer.) The skin is covered with a scarlatiniform eruption. Sometimes an extraordinary lassitude may be observed, an uncertainty in talking, and delirium. In the experiments undertaken by M. Fauqué,

(Thèse de Paris, 1879,) a noticeable quickening of respiration was detected in animals, though this was not observed with atropia. The central nervous system is then acted upon: thence come delirium and stupor. In the case of animals subjected to subcutaneous injections of duboisia, a marked weakening of the excito-motor power follows. This weakness continues as long as excess of blood to the member, which is being studied, is prevented. In exceptional cases tetaniform convulsions have been observed. The action on the circulatory apparatus is shown by the acceleration of the heart-beat, but this is not observed in frogs. In these animals, contrary to what is produced in the case of dogs, there is a diminution in the heart-beat. The secretion of sweat and saliva is considerably diminished. From this results the great dryness of the mouth and throat observed in men and animals. There should be, according to M. Fauqué, a paralysing action on the excito-sudoral nervous fibres admitted by M. Vulpian. Finally duboisia causes dilatation of the iris, and paralysis of accommodation, and seems to act by direct paralysis of the motor nerve-filaments of the ciliary muscles and iris. Besides, the action on the iris and the ciliary muscle is exercised independently; the iris remains paralysed longer than the muscle of accommodation. Duboisia differs from atropia by by the persistence and greater rapidity of its action on the muscle of accommodation. Duboisia is indicated in all cases in which atropia acts badly. However, in two cases of iritis reported by Galezowski it has caused as much irritation as atropia. M. Gubler has used it for the sweats of phthisis in the dose of one milligram by injection. He has employed it in the same proportion to raise the number of pulsations, which had fallen to forty in the case of a tuberculous patient, and as a calmative in a case of maniacal delirium. The hypodermic injection (1 part to 200) at the rate of two drops a day at the beginning is the most convenient mode of employment as a collyrium intended to cause mydriasis. M. Galezowski gives from 0.02 gram to 0.10 gram in 10 grams of water at the rate of three to five drops a day. In cases of inflammation of the cornea from foreign bodies the following salve may be employed with advantage, placed under the eyelid morning and evening: Neutral sulphate of duboisia, 0.02 gram, vaselin, 10 grams.—(*Revue des Sciences Médicales*, Jan., 1880; *American Journal of Medical Science*, April, 1880.)

Transactions of Societies.

Wayne County Medical Society.

ANNUAL MEETING.

DETROIT, October 7th, 1880.

The annual meeting of this society was held at the office of Dr. Brodie this evening.

The President, Dr. Brodie, in the chair.

The report of the Secretary showed a membership of twenty-two, in good standing. That of the Treasurer a balance of $36.36, with no liabilities.

The following officers were elected for the ensuing fiscal year:

President.—Dr. Peter Klein, Detroit.

Vice-president.—Dr. E. S. Snow, Dearborn.

Secretary.—Dr. J. J. Mulheron, Detroit.

Treasurer,—Dr. G. R. Richards, Detroit.

Board of Directors.—Dr. E. P. Christian, Wyandotte; Dr. H. F. Lyster, Detroit; Dr. J. B. Book, Detroit; Dr. W. H. Rouse, Detroit; Dr. Wm. Brodie, Detroit.

It is an established custom of this society to present at its annual meetings, to such offspring born to its members during the year, a silver spoon. The only demand during the past year was occasioned by the birth of a son to Dr. J. J. Mulheron, and the retiring president, Dr. Brodie, presented the usual gift to the blushing father in a happy speech. The spoon was accepted as a reward of merit, and with the hope that this standing inducement would occasion a larger demand during the coming year.

After the pleasantries of this episode the society adjourned to Dr. Brodie's dining room, and here the curtain is allowed to drop.

W. H. ROUSE, Secretary.

STATED MEETING.

DETROIT, October 21, 1880.

The Society met this evening at the office of Dr. Peter Klein.

Dr. Klein, president, in the chair.

Dr. Leonard exhibited a Piffard Galvano Caustic Battery which he had just received. It consists of six cells with two zinc and one platinum (2 inch. x 5 inch.) elements to each cell. It has an oscillating movement to increase the intensity and the quantity of the current. Its working solution is a strong bichromate of potash and sulphuric acid solution. It is manufactured by the Galvano-Faradic Co.

Dr. G. R. Richards reported five cases of acute rheumatism lately treated by him, in which he had adopted a variety of treatment. The most pronounced effects were from the use of Salicylic acid in large doses. In one case nothing else would give relief, but one dose, of thirty grains, of the salicylate of soda afforded prompt relief from pain, and the continued use of the salt secured in these doses, three times a day, immunity from suffering. The suspension of the remedy was immediately followed by a recurrence of the pain, and it was necessary to continue its use for two weeks. No untoward effects followed this prolonged use of these large doses.

He employed blisters in all these cases and thinks highly of their effects in rheumatic arthritis, applied over the joint.

Dr. Leonard reported a case in illustration of the constitutional effects which are possible from the purely local treatment of uterine diseases. A patient was referred to him by Dr. Lundy, who had been treating her, with indifferent success, for a troublesome cough, the physical signs being dullness at apex of right lung. Dr. Lundy suspecting the obstinancy to treatment was aggravated by uterine trouble of which she complained, referred her to him (Dr. Leonard), He found endometritis, enlarged and painfully tender uterus, with the the characteristic leucorrhœal discharge. The treatment consisted solely of the application of:

℞ Tr. iodinii, ʒ v.
Acidi carbolici, ʒ j.
Glycerinæ, q. s. ad., ʒ ij.
Mix.

to the endometrium, the remedies directed to the lungs having in the meantime been suspended. After each application he inserted a tampon, as is his custom in such cases, saturated with the following:

℞ Acidi tannici.
Acidi carbolici. ℥ 3j.
Tr. iodinii, 3ij.
Glycerinæ, q. s. ad., 3jv.

Mix.

The uterine trouble commenced to improve and simultaneously the cough abated and the physical signs disappeared.

In answer to a question Dr. Leonard stated that he had applied iodine to the endometrium in the manner indicated upwards of three thousand times, and has yet to meet his first accident. This success he attributes to the dilatation of the os and cervix which he invariably secures prior to the application. He dilates by means of the passage of a bougie, number twelve size at least, leaving a ready exit for the superfluous fluid squeezed from the applicator. Uterine colic sometimes follows vaginal injections. This he thinks is due to the fluid being forced with the uterus through the central opening of the nozzle of the syringe; he always closes this with a plug.

He called attention to the characteristic headache of uterine disease—a hot, pressing pain on the top of the head.

Dr. Lyster reported three cases of diphtheria recently treated, in separate families. One case proved fatal. In one case the exudate was confined to the uvula. A careful investigation failed to trace the cause to any contagion. The cases were strictly quarantined and the spread to other members of the family prevented. His treatment of diphtheria consists of the muriate tincture of iron, quinine, chlorate of potassa and whisky, internally; carbolized lime-water spray locally; and emetics as required to clear the throat of accumulations.

Dr. Lundy had lately seen a case in which the disease first manifested itself in spots, fifteen or twenty in number, on the fauces, which afterwards coalesced in to a continuous diphtheritic patch. He has great faith in local treatment, and esteems boracic acid highly in such treatment.

Dr. Book reported two cases of diphtheria successfully treated with quinine, muriate tincture of iron and chlorate of potash. Discountenances special local treatment, relying entirely on the local contact of the internal medicine in the act of swallowing. Local treatment disturbs the young patient and in so far aggravates the difficulty.

Dr. Brodie spoke of a case of diphtheria in which, the usual quinine, iron and potassa treatment having been followed, the child, 11 years of age, while talking to the doctor suddenly rolled over and in two minutes was dead. The death was doubtless due to suffocation from displaced membrane.

Dr. Brodie also reported a case of acute jaundice. The patient retired at night in his usual good health and awoke in the morning intensely jaundiced over the whole body, the color being of a deep orange. The conjunctiva was completely yellow. There was entire absence of any painful sensation and the patient knew nothing of his condition until his attention was directed to it by his wife. A homœopathic practitioner was summoned, and held charge for a week, at the end of which time Dr. Brodie was called. He found that the patient had had no motion of the bowels during the week, and a very scant secretion of urine. A careful examination revealed no enlargement or tenderness of the liver. A brisk cathartic brought away large fecal accumulations of the appearance and consistence of coal tar. Diuretics, acetate of potash and sweet spirit of nitre, stimulated the kidney to free secretion, the fluid being of a deep saffron color. This treatment continued for several days, failed to relieve the jaundiced appearance. Being called to New York, he turned the case over to Dr. Mulheron until his return.

Dr. Mulheron continued the report of the case. On taking charge he placed the patient, the skin being inactive and dry, on twenty drop doses of the fluid extract of jaborandi, every three hours. Three doses sufficed to bring on free diaphoresis, the perspiration staining the bed linen yellow. The sweating was accompanied by a slight improvement in the color of the patient. The dose of jaborandi was then decreased so as to secure mere moistening of the surface. Notwithstanding the fact that the second sound of the heart showed signs of weakening, improving temporarily under egg-nog, he gave a favorable prognosis, this being based upon the statistics, which show that a fatal termination of acute jaundice is among the rarest occurrences. The weakening, however, continued in spite of the stimulant and supportive measures.

Dr. Brodie again took charge of the case on his return, which kept on sinking and finally succumbed, sixteen days from the date of the attack.

A post mortem was not permitted, and the cause of death was conjectured to be due to poisoning of the system by the thorough saturation with bile, no organic difficulty being detectable.

Dr. Lundy:—Some time since a patient presented himself at the Michigan Eye and Ear Infirmary, complaining of failing vision. He was suffering from disease of the liver, was intensely jaundiced and was much emaciated. The ophthalmoscope revealed no retinal hemorrhage or other pathological change, but the fundus of the eye was as dark as the eye of a negro, although the patient was a white man, and of fair complexion when in health. The dark color of the fundus oculi was due, no doubt, to excessive deposit of bile pigment and the staining of the tissues. Vision has been faling for six months, and this failure is keeping pace with the general failure of nutrition and loss of weight. Whether the failure of vision is due to impaired nutrition in the retina, to a partially loss of transparency in the inner layers of that tunic from staining with bile pigment, or to some other cause, as yet not apparent, I am unable to say.

Dr. Lyster reported two cases of neuralgia in which only hypodermic injections of morphia and atropia combined would afford relief. They recovered under this treatment continued for two weeks.

Dr. Eaton reported the prevalence in his practice of an influenza, resembling in essential particulars the epizootic at present affecting horses.

Drs. Lyster and Mulheron were appointed a com-

mittee to draft a bill for the organization and legalization of the practice of medicine in this State, and to place it in charge of a member of the legislature at the approaching session of that body.

Adjourned.

J. J. MULHERON, Secretary.
PETER KLEIN, President.

Michigan State Board of Health.

The regular quarterly meeting of this Board was held at its office in the State capitol at Lansing on Tuesday, October 12, 1880. The following members were present during the meeting: Prof. E. A. Strong, of Grand Rapids; Hon. Le Roy Parker, of Flint; Rev. D. C. Jacokes, of Pontiac; H. F. Lyster, M. D., of Detroit; J. H. Kellogg, M. D., of Battle Creek, and Henry B. Baker, M. D., Secretary.

IMPURE WATER.

Dr. Kellogg reported the completion of his paper on contamination of water by decaying wood, and mentioned in that connection some observations of his in regard to ice being contaminated by decaying sawdust and other impurities. He showed the fallacy of the popular belief that ice freezes pure, and said that it incloses all organic impurities that float. He described a water-cooler which was designed to avoid contamination of the water by the ice, as would happen if the ice were placed directly in the water. A cylinder containing ice was placed in the center of the cooler allowing the water to come in contact with this cold cylinder without touching the ice. He also reported progress in studies relative to the work of the new committee to which he was appointed,—"the relations of preventable sickness to taxation."

Dr. Baker made a report of the

WORK IN THE SECRETARY'S OFFICE

during the past quarter, which showed the distribution of a large number of annual reports and other documents to officers of local boards of health and other persons. From evidence collected at Lansing, it would seem that the documents issued by the state board of health are in greater demand than any state documents, with the exception of the reports of the state board of agriculture and state pomological society.

REGULATION OF MEDICAL PRACTICE.

The Secretary stated that in response to communications relative to the proposed regulation of medical practice, he had prepared a paper and a form for a bill. He submitted an outline of it to the Board. He had done this heartily because he feared the State Board of Health would be made the examining board, and its usefulness for other important work impaired.

Latter in the session Dr. Lyster spoke on the same subject, and the following resolutions were adopted by the Board:

Resolved, That there should be required of all who are to begin the practice of medicine in this State an examination as to their qualifications.

Resolved, That such examinations by the State should be restricted to questions in demonstrable knowledge as distinguished from questions of mere opinion.

Resolved, That, as a public health measure, a committee of three be appointed to prepare and report at the next meeting of the Board a plan for furthering the objects stated in the preceding resolutions.

Drs. Lyster and Baker, and Rev. Dr. Jacokes were appointed such committee.

THE ANNUAL REPORT OF THE SECRETARY

relative to property received and disposed of during the fiscal year ending Sept. 30, 1880, showed the following disbursements:

Expenses of members attending meetings $205.65, instruments and books $147.11, paper, stationery, etc., $192.51, postage for the office $581.90, postage by members $16.30, printing and binding $389.27, secretary $2.000, miscellaneous (which includes telegrams, express, freight, etc.), $120.39, making a total expenditure for the fiscal year of $3,653.13.

EXAMINATION IN SANITARY SCIENCE.

The secretary reported that Dr. M. Veenboer, of Grand Rapids, and Henry B. Baker, M. D., of Lansing, the applicants for examination in Sanitary Science by this Board, July 14, both passed the examination, and the Board had since voted to grant them certificates. It was voted to publish the questions asked these candidates, in the report of the Board for 1880. The Secretary reported that in accordance with instructions from the Board, he had prepared a list of books valuable for reference and study by candidates for the examinations in Sanitary Science, and it was voted to print the list in the Annual Report for 1880.

SANITARY CONVENTIONS.

It was voted to hold two Sanitary Conventions for the reading of papers, discussion of sanitary topics, and the exhibition of sanitary appliances, during the coming Winter.

The secretary presented an invitation to the international medical congress to be held in London, August, 1881.

Dr. Jacokes presented a drawing and description of plan for introducing fresh air to be warmed by a coal stove in the room.

The secretary was directed to investigate the hog cholera now prevailing in the southwestern part of this state, and find if possible any relation between that and any sickness in the human species.

Dr. Baker presented species of pine infected with a fungus which had completely destroyed the floors of several rooms, constructed of that wood, in a new building. The fungus seemed to grow most where the floor was covered, as with oil-cloth or by boxes resting on the floor; and in one room the decayed floor corresponded with the portion not exposed to light, though that case may be explained by a greater amount of moisture in that part of the room, because of dampness underneath. The odor in the room was that mouldy or musty odor not infrequently met with in close rooms. It caused frontal headache, and a person engaged in repairing the floor had spells of sneezing on two occasions some months apart while thus employed.

Dr. Henry B. Baker was appointed a delegate to the meeting of the American Public Health Association, at New Orleans in December.

Auditing of bills and other routine work was accomplished during the day. The next regular meeting of the Board will be on January 11, 1881.